BLUE EARTH COUNTY HIGHWAY DEPARTMENT
35 MAP DRIVE, MANKATO, MINNESOTA 56001

*************PROPOSAL*************

FOR HIGHWAY CONSTRUCTION
AND MAINTENANCE PROJECTS WITH
BIDS RECEIVED UNTIL 1:30 O'CLOCK P.M. ON APRIL 6, 2011

PROPOSAL OF _____
(NAME OF FIRM)

_____
(ADDRESS)

_____
(AREA CODE) TELEPHONE NUMBER

TO FURNISH AND DELIVER ALL MATERIALS AND TO PERFORM ALL WORK IN ACCORDANCE WITH THE CONTRACT, THE PLANS AND THE APPROVED DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR CONSTRUCTION", 2005 EDITION, EXCEPT AS STATED OTHERWISE IN THE SPECIAL PROVISIONS WHICH ARE PART OF THIS PROPOSAL, FOR

STATE PROJECT NO. **S.A.P. 07-598-27 & S.A.P. 07-599-53**

MINNESOTA PROJECT NO.

LOCATION: CR 164 over the Big Cobb River, Beauford Twp Rd 337 over the Big Cobb River

TYPE OF WORK: Bridge & Grading

LENGTH: 0.360 Miles, & 0.134 Miles

STARTING DATE: See Special Provisions

COMPLETION DATE: See Special Provisions

NOTICE TO BIDDERS: In submitting a bid, you must return this complete proposal. You must initial changes made in the Schedule of Prices in the Proposal and acknowledge addenda on the back cover sheet.

I certify that this Proposal was prepared by me or under my direct supervision, and that I am a licensed professional engineer under the laws of the State of Minnesota.

_____

License Number 14720 Date: 31 Mar 11

****

BID RIGGING IS A SERIOUS CRIME. IF YOU HAVE ANY INFORMATION CONCERNING COLLUSIVE BIDDING, EVEN A REQUEST TO SUBMIT A COMPLIMENTARY BID, PLEASE CALL THE MINNESOTA ATTORNEY GENERAL'S OFFICE AT TELE. NO. 651-296-1796

To Local Agency (Board of Commissioners/City Council):

According to the advertisement of Local Agency inviting proposals for the improvement of the section of highway hereinbefore named, and in conformity with the Contract, Plans, Specifications and Special Provisions pertaining thereto, all on file in the office of the (Auditor/Clerk) of Local Agency:

(I)(We) hereby certify that (I am)(we are) the only person(s) interested in this proposal as principal(s); that this proposal is made and submitted without fraud or collusion with any other person, firm or corporation at all; that an examination has been made of the site of the work and the Contract form, with the Plans, Specifications and Special Provisions for the improvement.

(I)(We) understand that the quantities of work shown herein are approximate only and are subject to increase or decrease; that all quantities of work, whether increased or decreased within the limits specified in Mn/DOT 1903, are to be done at the unit prices shown on the attached schedule; that, at the time of opening bids, totals only will be read, but that comparison of bids will be based on the correct summation of item totals obtained from the unit prices bid, as provided in Mn/DOT 1301.

(I)(We) propose to furnish all necessary machinery, equipment, tools, labor and other means of construction and to furnish all materials specified, in the manner and at the time prescribed, all according to the terms of the Contract and Plans, Specifications, and the Special Provisions forming a part of this.

(I)(We) further propose to do all Extra Work that may be required to complete the contemplated improvement, at unit prices or lump sums to be agreed upon in writing before starting such work, or if such prices or sums cannot be agreed upon, to do such work on a Force Account basis, as provided in Mn/DOT 1904.

(I)(We) further propose to execute the form of Contract within 10 days after receiving written notice of award, as provided in Mn/DOT 1306.

(I)(We) further propose to furnish a payment bond equal to the Contract amount, and a performance bond equal to the Contract amount, with the aggregate liability of the bond(s) equal to twice the full amount of the Contract if the contract is less than or equal to five million dollars ($5,000,000.00), or if the contract is in excess of five million dollars ($5,000,000.00) the aggregate liability shall be equal to the amount of the contract, as security for the construction and completion of the improvement according to the Plans, Specifications and Special Provisions as provided in Mn/DOT 1305.

(I)(We) further propose to do all work according to the Plans, Specifications and Special Provisions, and to renew or repair any work that may be rejected due to defective materials or workmanship, before completion and acceptance of the Project by Local Agency.

(I)(We) agree to all provisions of Minnesota Statutes, Section 181.59.

(I)(We) further propose to begin work and to prosecute and complete the same according to the time schedule set forth in the Special Provisions for the improvement.

(I)(We) assign to Local Agency all claims for overcharges as to goods and materials purchased in connection with this Project resulting from antitrust violations that arise under the antitrust laws of the United States and the antitrust laws of the State of Minnesota. This clause also applies to subcontractors and first tier suppliers under this Contract.

NOTICE TO ALL BIDDERS

To report bid rigging activities call:

1-800-424-9071

The U.S. Department of Transportation (DOT) operates the above toll-free "hotline" Monday through Friday, 8:00 a.m. to 5:00 p.m., eastern time. Anyone with knowledge of possible bid rigging, bidder collusion, or other fraudulent activities should use the "hotline" to report such activities.

The "hotline" is part of the DOT's continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the DOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

NOTICE TO BIDDERS

SUSPENSIONS/DEBARMENTS

DEPARTMENT OF TRANSPORTATION

NOTICE OF SUSPENSION

NOTICE IS HEREBY GIVEN that the Department of Transportation (Mn/DOT) has ordered that the following vendors be suspended effective December 28, 2009, until final disposition of the hearing or hearing appeal:

Riley Bros. Companies Inc. and its affiliates, Morris MN
Riley Bros. Construction Inc. and its affiliates, Morris MN
Riley Bros. Properties, LLC, and its affiliates, Morris MN
Riley Bros. Utilities, Inc. dba/Chris Riley Utilities, Inc. and its affiliates, Morris MN

NOTICE IS HEREBY GIVEN that the Department of Transportation (Mn/DOT) has ordered that the following vendors be suspended effective February 10, 2011, until final disposition of the hearing or hearing appeal:

Philip Joseph Franklin
Franklin Drywall Inc. and its affiliates, Little Canada, MN
Master Drywall Inc. and its affiliates, Little Canada, MN

NOTICE OF DEBARMENT

NOTICE IS HEREBY GIVEN that the Department of Transportation (Mn/DOT) has ordered that the following vendors be debarred for a period of three (3) years effective February 24, 2010 until February 24, 2013:

Joseph Edward Riley, Morris, MN
John Thomas Riley, Morris, MN

Minnesota Statutes, Section 161.315, prohibits the Commissioner, counties, towns or home rule or statutory cities from awarding or approving the award of a contract for goods or services to a person who is suspended or debarred; including

1) any contract under which a debarred or suspended person will serve as a subcontractor or material supplier,
2) any business or affiliate which the debarred or suspended person exercises substantial influence or control, and
3) any business or entity which is sold or transferred by a debarred person remains ineligible during the period of the seller's or transfer's debarment.

NOTICE TO BIDDERS

SUSPENSIONS/DEBARMENTS

DEPARTMENT OF ADMINISTRATION

The Department of Administration in accordance with Minnesota Rules 1230.1150 has debarred and disqualified the following persons and businesses from entering into or receiving a State of Minnesota contract.

NAME	DATE OF DEBARMENT
Joseph Edward Riley East 7th Street & Highway 59 Bypass Morris, Minnesota 56267	November 9, 2009 Through November 9, 2012
John Thomas Riley East 7th Street & Highway 59 Bypass Morris, Minnesota 56267	November 9, 2009 Through November 9, 2012
Riley Bros. Construction, Inc. East 7th Street & Highway 59 Bypass Morris, Minnesota 56267	November 9, 2009 Through November 9, 2012
Riley Bros. Companies Inc. East 7th Street & Highway 59 Bypass Morris, Minnesota 56267	November 9, 2009 Through November 9, 2012
Polyphase Electric Company 2515 West Superior Street Duluth, MN 55816-0151	May 5, 2010 Through May 5, 2012
Frances Harkonen 2515 West Superior Street Duluth, MN 55816-0151	May 5, 2010 Through May 5, 2012

Minnesota Rules Part 1230.1150, Subpart 6 requires the Materials Management Division to maintain a master list of all suspensions and debarments. The master list must retain all information concerning suspensions and debarments as a public record for at least three years following the end of a suspension or debarment. This list can be found at: http://www.mmd.admin.state.mn.us/debarredreport.asp

STATE FUNDED CONSTRUCTION CONTRACTS
SPECIAL PROVISIONS DIVISION A - LABOR
April 7, 2006

I. PREAMBLE

It is in the public interest that public buildings and other public works projects be constructed and maintained by the best means and the highest quality of labor reasonably available and that persons working on public works projects be compensated according to the real value of the services they perform.[1]

Therefore, the department shall administer this contract pursuant to the **State of Minnesota Statutes and Rules, MN/DOT's Standard Specifications for Construction, MN/DOT's Contract Administration Manual, MN/DOT's State Aid Manual** and applicable federal labor regulations.

II. DEFINITIONS[2]

A. **Contract**: The written agreement between the contracting authority and the prime contractor setting forth their obligations, including, but not limited to, the performance of the work, the furnishing of labor and materials, the basis of payment, and other requirements contained in the contract documents.

B. **Contracting Authority**: The political subdivision, governmental body, board, department, commission, or officer making the award and execution of contract as the party of the first part.

C. **Contractor**: The term "contractor" in these provisions shall include the prime contractor, subcontractor, agent, or other person doing or contracting to do all or part of the work under this contract.[3]

D. **Department**: The Department of Transportation of the State of Minnesota, or the political subdivision, governmental body, board, commission, office, department, division, or agency constituted for administration of the contract work within its jurisdiction.

E. **First Tier Subcontractor**: An individual, firm, corporation, or other entity to which the prime contractor sublets part of the contract.

F. **Independent Truck Owner/Operator (ITO)**: An individual, partnership, or principal stockholder of a corporation who owns or holds a vehicle under lease and who contracts that vehicle and the owner's services to an entity that provides construction services to a public works project.[4]

G. **Laborer or Mechanic**: A worker in a construction industry labor class identified in or pursuant to Minnesota Rules 5200.1100, Master Job Classifications.[5]

H. **Plan**: The plan, profiles, typical cross-sections, and supplemental drawings that show the locations, character, dimensions, and details of the work to be done.

I. **Prime Contractor**: The individual, firm, corporation, or other entity contracting for and undertaking prosecution of the prescribed work; the party of the second part to the contract, acting directly or through a duly authorized representative.

J. **Project**: The specific section of the highway, the location, or the type of work together with all appurtenances and construction to be performed under the contract.

---

[1] Minnesota Statute 177.41
[2] MN/DOT Standard Specifications for Construction, Section 1103
[3] Minnesota Statute 177.44, Subdivision 1
[4] Minnesota Rules 5200.1106, Subpart 7(A)
[5] Minnesota Rules 5200.1106, Subpart 5(A)

K. **Second Tier Subcontractor**: An individual, firm, corporation, or other entity to which a first tier subcontractor sublets part of the contract.

L. **Special Provisions**: Additions and revisions to the standard and supplemental specifications covering conditions peculiar to an individual project.

M. **Specifications**: A general term applied to all directions, provisions, and requirements pertaining to performance of the work.

N. **Subcontractor**: An individual, firm, corporation, or other entity to which the prime contractor or subcontractor sublets part of the contract.

O. **Substantially In Place**: Mineral aggregate is deposited on the project site directly or through spreaders where it can be spread from or compacted at the location where it was deposited.[6]

P. **Trucking Broker**: An individual or business entity, the activities of which include, but are not limited to: contracting to provide trucking services in the construction industry to users of such services, contracting to obtain such services from providers of trucking services, dispatching the providers of the services to do work as required by the users of the services, receiving payment from the users in consideration of the trucking services provided and making payment to the providers for the services.[7]

Q. **Trucking Firm/Multiple Truck Owner (MTO)**: Any business entity that owns more than one vehicle and hires the vehicles out for services to brokers or contractors on public works projects.[8]

R. **Work**: The furnishing of all labor, materials, equipment, and other incidentals necessary or convenient to the successful completion of the project and the carrying out of all the duties and obligations imposed by the contract upon the contractor. Also used to indicate the construction required or completed by the contractor.

III. SCOPE – SPECIAL PROVISIONS DIVISION A & CONTRACT

A. These provisions shall apply to this contract, which is funded in whole or part with state funds.[9]

B. These provisions shall apply to the prime contractor and all subcontractors contracting to do all or part of the work under this contract.[10]

C. The provisions established in this document do not necessarily represent all federal, state, and local laws, ordinances, rules and regulations. It is the responsibility of the prime contractor to inform itself and all subcontractors about other regulations that may be applicable to this contract.

D. The prime contractor is responsible to ensure that each subcontractor performing work under this contract receives copies of all required contract provisions. These provisions shall be incorporated into written subcontracts and must be displayed on the poster board.[11]

E. The department shall administer this contract in accordance with all applicable state statutes and rules,[12] along with the plans, specifications and provisions, which are incorporated into and found elsewhere in this contract.

F. An unpublished decision from the Minnesota Court of Appeals affirms the authority of the Minnesota Commissioner of Transportation to enforce the Minnesota Prevailing Wage Law on a case-by-case basis.[13]

---

[6] Minnesota Rules 5200.1106, Subpart 5(C)
[7] Minnesota Rules 5200.1106, Subpart 7(C)
[8] Minnesota Rules 5200.1106, Subpart 7(B)
[9] Minnesota Statute 177.41
[10] Minnesota Statute 177.44, Subdivision 1
[11] Minnesota Statute 177.44, Subdivision 5
[12] Minnesota Rules 8820.3000, Subpart 2
[13] Minnesota Court of Appeals Case Number: C6-97-1582

G. For additional information refer to: www.dot.state.mn.us/const/labor/.

IV. PAYROLLS AND STATEMENTS

A. All contractors shall submit a payroll statement to the department.[14] The statement shall be submitted based on the contractor's payment schedule. If a contractor pays its employees weekly, a payroll statement shall be submitted weekly. If a contractor pays its employees biweekly, a payroll statement shall be submitted biweekly.[15] All contractors shall pay its employees at least once every 15 days on a date designated in advance by the employer.[16] Each statement submitted shall include all employees that performed work under this contract and provide at a minimum the following information:[17]

1. Contractor's name, address, and telephone number.
2. State project number.
3. Payroll report number.
4. Project location.
5. Workweek ending date.
6. Name, social security number, and home address for each employee.
7. Labor classification(s) and/or three-digit code for each employee.
8. Hourly straight time and overtime wage rates paid to each employee.
9. Daily and weekly hours worked in each labor classification, including overtime hours for each employee.
10. Authorized legal deductions for each employee.
11. Project gross amount, weekly gross amount and net wages paid to each employee.

B. Payroll records may be submitted in any form provided it includes all the information contained in **Subpart A (1 - 11)** of this section. However, contractors needing a payroll form may utilize the "front side" of the **U.S. Department of Labor's, WH-347 - Payroll Form**. This form is available by visiting the Labor Compliance website.[18]

C. All payroll records must be accompanied with a completed and signed **MN/DOT, 21658 - Statement of Compliance Form**.[19]

D. The prime contractor is responsible for assuring that its payroll records and those of all subcontractors include all employees that performed work under this contract and accurately reflect the hours worked, regular and overtime rates of pay and classification of work performed.[20]

E. The prime contractor is responsible to maintain all certified payroll records, including those of all subcontractors, throughout the course of a construction project and retain all records for a period of three years after the final contract voucher has been issued.[21]

F. At the end of each pay period, each contractor shall provide every employee, in writing, an accurate, detailed earnings statement.[22]

---

[14] Minnesota Statute 177.44, Subdivision 7
[15] Mn/DOT Contract Administration Manual, Section .320
[16] Minnesota Statute 181.10
[17] Minnesota Rules 5200.1106, Subpart 10 and Minnesota Statute 177.30
[18] www.dot.state.mn.us/const/labor/
[19] Minnesota Rules 5200.1106, Subpart 10
[20] Minnesota Statute 177.30(1)(2)(3)(4)
[21] Minnesota Statute 177.30(4)
[22] Minnesota Statute 181.032

G. Upon request from the Minnesota Department of Labor and Industry (MN/DLI) or the Department, the prime contractor shall promptly furnish copies of payroll records for its workers and those of all subcontractors, along with other records, deemed appropriate by the requesting agency to determine compliance with these contract provisions.[23]

H. At the department's discretion, the project engineer may administer the submission of payroll records according to MN/DOT's Payroll Maintenance Program. The guidelines for the implementation and administration of this program are outlined in the **MN/DOT Contract Administration Manual, Section A(4)(d)**.

I. If, after written notice, the prime contractor fails to submit its payroll reports and certification forms and those of any subcontractor, the department may implement the actions prescribed in section **XVI (NON-COMPLIANCE AND ENFORCEMENT).**

V. WAGE RATES

A. The prime contractor is responsible to ensure that its workers and those of all subcontractors are compensated according to the MN/DLI state prevailing wage determination(s) incorporated into and found elsewhere in this contract. All contractors shall pay each worker the required minimum total hourly wage rate for all hours worked on the project and for the appropriate classification of labor.

1. State highway and heavy wage determinations are issued for ten separate regions throughout the state of Minnesota. If the contract work is located in more than one region, the applicable wage decision for each region shall be incorporated into and found elsewhere in this contract. If this contract contains multiple state highway and heavy wage determinations, there shall be only one standard of hours of labor and wage rates. [24]

2. State commercial wage determinations are issued for each county throughout the state of Minnesota. If the contract work is located in more than one county, the applicable wage determination for each county shall be incorporated into and found elsewhere in this contract. If this contract contains multiple state commercial wage determinations, there shall be only one standard of hours of labor and wage rates.[25]

B. Wage rates listed in the state wage determination(s) contain two components: the hourly basic rate and the fringe rate; together they equal the total prevailing wage rate. A contractor shall compensate a worker at a minimum, a combination of cash and fringe benefits equaling the total prevailing wage rate.[26]

C. The applicable certified wage decision(s) incorporated into and found elsewhere in this contract remain in effect for the life of this contract. The wage decision(s) do not necessarily represent the workforce that can be obtained at the rates certified by the MN/DLI. It is the responsibility of the prime contractor and any subcontractor to inform themselves about local labor conditions and prospective changes or adjustments to the wage rates. No increase in the contract price shall be allowed or authorized due to wage rates that exceed those incorporated into this contract.

D. A contractor shall not reduce a worker's private, regular rate of pay when the wage rate certified by the MN/DLI is less than the worker's normal hourly wage.[27]

E. From the time a worker is required to report for duty at the project site until the worker is allowed to leave the site, no deductions shall be made from the worker's hours for any delays of less than twenty consecutive minutes.[28]

---

[23] Minnesota Statute 177.44, Subdivision 7 and Minnesota Rules 5200.1106, Subpart 10
[24] Minnesota Statute 177.44, Subdivision 4
[25] Minnesota Statute 177.44, Subdivision 4
[26] Minnesota Statute 177.42, Subdivision 6
[27] Minnesota Statute 181.03, Subdivision 1(2)
[28] Minnesota Rules 5200.0120,Subpart 1

F. In situations where a delay may exceed twenty consecutive minutes and the contractor requires a worker to remain on the premises or so close to the premises that the worker cannot use the time effectively for the worker's own purposes, the worker is considered "on-call"[29] and shall be compensated in accordance with **Subpart B** of this section, unless the worker is allowed or required to leave the project site.

G. A contractor making payment to an employee, laborer, mechanic, worker, or truck owner-operator shall not accept a rebate for the purpose of reducing or otherwise decreasing the value of the compensation paid.[30]

H. Any employee who knowingly permits a contractor to pay less than the total prevailing wage or gives up any part of the compensation to which the employee is entitled may be subject to penalties.[31]

VI. BONA FIDE FRINGE BENEFITS

A. A "funded" fringe benefit plan is one that allows the contractor to make irrevocable contributions on behalf of an employee to a financially responsible trustee, third person, fund, plan or program, without prior approval from the U.S. Department of Labor. Types of "funded" fringe benefits may include, but are not limited to: pension, health and life insurance.[32]

B. An "unfunded" fringe benefit plan or program is one that allows the contractor to furnish an in-house benefit on behalf of an employee. The cost to provide the benefit is funded from the contractor's general assets rather than funded by contributions made to a trustee, third person, fund, plan or program. Types of "unfunded" fringe benefits may include, but are not limited to: holiday plans, vacation plans and sick plans.[33]

C. Credit toward the total prevailing wage rate shall be determined for each individual employee and is allowed for bona fide fringe benefits that:[34]

1. include contributions irrevocably made by a contractor on behalf of an employee to a financially responsible trustee, third person, fund, plan, or program;
2. are legally enforceable;
3. have been communicated in writing to the employee; and
4. are made available to the employee once he/she has met all eligibility requirements.

D. No credit shall be allowed for benefits required by federal, state or local law, such as: worker's compensation, unemployment compensation, and social security contributions.[35]

E. Upon request from the Minnesota Department of Labor and Industry (MN/DLI) or the Department, the prime contractor shall promptly furnish copies of fringe benefit records for its workers and those of all subcontractors, along with other records, deemed appropriate by the requesting agency to determine compliance with these contract provisions.[36]

F. In addition to the requirements set forth in **Subpart C** of this section, it is the responsibility of the prime contractor and any subcontractor to inform themselves about other federal and state fringe benefit regulations that may be applicable to this contract.

---

[29] Minnesota Rules 5200.0120, Subpart 2
[30] Minnesota Rules 5200.1106, Subpart 6
[31] Minnesota Statute 177.44, Subdivision 6
[32] 29 CFR Parts 5.26 and 5.27
[33] 29 CFR Part 5.28
[34] 29 CFR Part 5.23
[35] 29 CFR Part 5.29(f)
[36] Minnesota Statute 177.44, Subdivision 7 and Minnesota Rules 5200.1106, Subpart 10

G. Contractors shall submit a completed and signed **MN/DOT, 21658 - Statement of Compliance Form,** identifying any fringe contributions made on behalf of a worker.[37] The form must be submitted in accordance with section **IV (PAYROLLS AND STATEMENTS), Subparts A and C.**

H. Pursuant with ***Minnesota Statute 181.74, Subdivision 1***, a contractor that is obligated to deposit fringe benefit contributions on behalf of its employees into a financially responsible trustee, third person, fund, plan, or program and fails to make timely contributions may be guilty of a gross misdemeanor. A contractor found in violation of the above-mentioned statute shall compel the department to take such actions as prescribed in section **XVI, (NON-COMPLIANCE AND ENFORCEMENT).**

VII. OVERTIME

A. A contractor shall not permit or require a worker to work longer than the prevailing hours of labor unless the worker is paid for all hours in excess of the prevailing hours at a rate of at least 1-1/2 times the hourly basic hourly rate of pay.[38] The prevailing hours of labor is defined as not more than 8 hours per day or more than 40 hours per week.[39]

B. In addition to the requirements set forth in **Subpart A** of this section, it is the responsibility of the prime contractor and any subcontractor to inform themselves about other federal and state overtime regulations that may be applicable to this contract.

VIII. LABOR CLASSIFICATIONS

All contractors shall refer to the state wage determination(s) incorporated into and found elsewhere in this contract or the Master Job Classification List[40] to obtain an applicable job classification. If a contractor cannot determine an appropriate job classification, state law requires that the worker be assigned a job classification that is the "same or most similar".[41] Contractors needing clarification shall contact MN/DLI or the MN/DOT Labor Compliance Unit at (651) 296-6503.

IX. INDEPENDENT CONTRACTORS, OWNERS, SUPERVISORS AND FOREMAN

A. An independent contractor performing work as a laborer or mechanic is subject to the contract prevailing wage requirements[42] for the classification of work performed and shall adhere to the requirements established in sections **IV (PAYROLLS AND STATEMENTS); V (WAGE RATES); VI (FRINGE BENEFITS); VII (OVERTIME) and VIII (LABOR CLASSIFICATIONS)**. In order to ensure compliance, the department may examine the subcontract agreement to determine if the bid price submitted covers the applicable prevailing wage rate for the number of hours worked, along with other records, deemed appropriate by the department.[43]

B. Pursuant with state regulations, owners, supervisors and foreman performing work under the contract[44] shall be compensated in accordance with section **V (WAGE RATES)**. Furthermore, the prime contractor and any subcontractor shall adhere to the requirements established in sections **IV (PAYROLLS AND STATEMENTS); VI (FRINGE BENEFITS); VII (OVERTIME) and VIII (LABOR CLASSIFICATIONS)**.

---

[37] Minnesota Rules 5200.1106, Subpart 10
[38] Minnesota Statute 177.44, Subdivision 1
[39] Minnesota Statute 177.42, Subdivision 4
[40] Minnesota Rules 5200.1100
[41] Minnesota Statute 177.44, Subdivision 1
[42] 29 CFR Part 5.2(o) and Minnesota Statute 177.41
[43] Minnesota Statute 177.44, Subdivision 7 and Minnesota Rules 5200.1106, Subpart 10
[44] Minnesota Statute 177.44, Subdivision 1

X. APPRENTICES, TRAINEES AND HELPERS

A. An apprentice is not subject to the state wage decision(s) incorporated into and found elsewhere in this contract, provided the contractor can demonstrate compliance with **Subparts (1 - 4)** of this section: [45]

1. The apprentice is performing the work of his/her trade.
2. The apprentice is registered with the U.S. DOL Bureau of Apprenticeship and Training or MN/DLI Division of Voluntary Apprenticeship.
3. The apprentice is compensated according to the rate specified in the program for the level of progress.
4. The ratio of apprentices to journeyman workers on the project is not greater than the ratio permitted for the contractor's entire work force under the registered program.[46]

B. If a contractor fails to demonstrate compliance with the terms established in **Subpart A (1 – 4)** of this section, the contractor shall compensate the worker not less than the applicable total prevailing wage rate for the actual work performed.[47]

C. A trainee and a helper are not exempt under state law; the contractor shall assign the trainee or helper a job classification that is the "same or most similar"[48] and compensate the trainee or helper for the actual work performed regardless of the trainee's or helper's skill level.

XI. SUBCONTRACTING PART OF THIS CONTRACT[49]

A. If the prime contractor intends to sublet any portion of this contract, it shall complete and submit a **MN/DOT, TP-21834, Request To Sublet Form** to the project engineer 10 days prior to the first day of work for any subcontractor.

B. The prime contractor shall not subcontract any portion of this contract without prior written consent from the project engineer.

C. The prime contractor's organization shall perform work amounting to not less than 40 percent of the total original contract cost. However, contracts with Disadvantaged Business Enterprise (DBE) or Targeted Group Business (TGB) established goals, or both, the contractor's organization shall perform work amounting to not less than 30 percent of the total original contract cost.

D. A first tier subcontractor shall not subcontract any portion of its work under this contract unless approved by the prime contractor and the project engineer. In addition, a first tier subcontractor may only subcontract up to 50% of its original subcontract.

E. A second tier subcontractor shall not subcontract any portion of its work under this contract.

F. Written consent to subcontract any portion of this contract does not relieve the prime contractor of liabilities and obligations under the contract and bonds.

G. Contractors shall not subcontract with or purchase materials or services from a debarred or suspended person.[50]

XII. POSTER BOARDS

A. The prime contractor shall construct and display a poster board, which contains all required posters, is complete, accurate, legible and accessible to all workers from the first day of work

---

[45] Minnesota Rules 5200.1070
[46] MN/DOLI Division of Apprenticeship – April 6, 1995 Memorandum from Jerry Briggs, Director
[47] Minnesota Rules 5200.1070, Subpart 3
[48] Minnesota Statute 177.44, Subdivision 1
[49] MN/DOT Standard Specifications for Construction, Section 1801
[50] Minnesota Statute 161.315, Subdivision 3(3)

until the project is 100 percent complete.[51] The prime contractor is not allowed to place a poster board at an off-site location.

B. The prime contractor can obtain the required posters by contacting MN/DOT at (651) 366-3091. The prime contractor will need to furnish its name, mailing address, the type of posters (state-aid) and the quantity needed.

C. Refer to the poster board section of the Labor Compliance website to obtain applicable contact information for each poster. The link to the website can be found in section **III (SCOPE – SPECIAL PROVISIONS DIVISION A & CONTRACT), Subpart G** of these provisions.

XIII. EMPLOYEE INTERVIEWS

At any time the prime contractor shall permit representatives from MN/DLI or the Department to interview its workers and those of any subcontractor during working hours on the project.[52]

XIV. TRUCKING / OFF-SITE FACILITIES

A. The prime contractor is responsible to ensure that its workers and those of all subcontractors, are compensated in accordance with the state wage determination(s) incorporated into and found elsewhere in this contract for the following work duties:

1. The processing or manufacturing of material, including the hauling of material to and from a prime contractor's material operation that is not a separate commercial establishment.[53]
2. The processing or manufacturing of material, including the hauling of material to and from an off-site material operation that is not considered a commercial establishment. [54]
3. The hauling of any or all stockpiled or excavated materials on the project work site to other locations on the same project even if the truck leaves the work site at some point.[55]
4. The delivery of materials from a non-commercial establishment to the project and the return haul.[56]
5. The delivery of materials from another construction project site to the public works project and the return haul, either empty or loaded. Construction projects are not considered commercial establishments.[57]
6. The hauling required to remove any materials from the project to a location off the project site and the return haul, either empty or loaded from other than a commercial establishment.[58]
7. The delivery of mineral aggregate materials from a commercial establishment, which is deposited "substantially in place" and the return haul, either empty or loaded.[59]

B. The work duties prescribed in **Subpart A (1 - 7)** of this section do not represent all possible hauling activities and/or other work duties that may be performed under this contract. It is the responsibility of the prime contractor to inform itself and all subcontractors about other applicable job duties that may be subject to the contract labor provisions. Refer to the Labor Compliance website for additional information regarding trucking regulations.

---

[51] Minnesota Statute 177.44, Subdivision 5
[52] MN/DOT Standard Specifications for Construction, Section 1511
[53] ALJ Findings of Fact, Conclusions of Law, and Recommendation, Conclusions (7), Case #12-3000-11993-2
[54] Minnesota Rules 5200.1106, Subpart 3B(2)
[55] Minnesota Rules 5200.1106, Subpart 3B(1)
[56] Minnesota Rules 5200.1106, Subpart 3B(2)
[57] Minnesota Rules 5200.1106, Subpart 3B(3)
[58] Minnesota Rules 5200.1106, Subpart 3B(4)
[59] Minnesota Rules 5200.1106, Subpart 3B(5)(6)

C. A contractor acquiring trucking services from an ITO, MTO and/or Truck Broker to perform and/or provide "covered" hauling activities shall comply with the payment of the certified state truck rental rates,[60] which are incorporated into and found elsewhere in this contract.

D. Each month, in which hauling activities were performed under this contract, the prime contractor and all subcontractors shall submit a **MN/DOT, TP-90550 - Month-End Trucking Report** and **MN/DOT, TP-90551 - Statement of Compliance Form**, along with each ITOs, MTOs and/or Truck Brokers reports to the department.[61] The specifications regarding the dates for submission can be found near the bottom of the **MN/DOT, TP-90551 - Statement of Compliance Form.**

E. A Truck Broker contracting to provide trucking services in the construction industry may charge a reasonable broker fee to the provider of trucking services.[62] The prime contractor and any subcontractor contracting to receive trucking services shall not assess a broker fee.

F. A contractor with employee truck drivers shall adhere to the requirements established in sections **IV (PAYROLLS AND STATEMENTS); V (WAGE RATES); VI (FRINGE BENEFITS); VII (OVERTIME) and VIII (LABOR CLASSIFICATIONS).**

G. If after written notice, the prime contractor fails to submit its month-end trucking reports and certification forms and those of any subcontractor, MTO and/or Truck Broker, the department may take such actions as prescribed in section **XVI, (NON-COMPLIANCE AND ENFORCEMENT).**

XV. CHILD LABOR

A. Except as permitted under **Subpart B** of this section, no worker under the age of 18 is allowed to perform work on construction projects.[63]

B. In accordance with state law, a worker under the age of 18, employed in a corporation totally owned by one or both parents that is supervised by the parent(s), may perform work on construction projects.[64] However, if this contractor is subject to the federal Fair Labor Standards Act, a worker under the age of 18 is not allowed to perform work in a hazardous occupation.[65]

C. To protect the interests of the department, the project engineer may remove a worker that appears to be under the age of 18 from the construction project until the contractor or worker can demonstrate proof of age[66] and compliance with all applicable federal and/or state regulations.[67]

XVI. NON-COMPLIANCE AND ENFORCEMENT

A. The prime contractor shall be liable for any unpaid wages to its workers or those of any subcontractor, ITO, MTO and/or Truck Broker.[68]

B. If it is determined that a contractor has violated the state prevailing wage law, or any portion of this contract, the department after written notice, may implement one or more of the following sanctions:

1. Withhold or cause to be withheld from the prime contractor such amounts in considerations or assessments against the prime contractor, whether arising from this contract or other contract with the department.[69]

---

[60] Minnesota Rules 5200.1106, Subpart 1
[61] Minnesota Rules 5200.1106, Subpart 10
[62] Minnesota Rules 5200.1106, Subpart 7(C)
[63] Minnesota Rules 5200.0910, Subpart F
[64] Minnesota Rules 5200.0930, Subpart 4
[65] 29 CFR Part 570.2(a)(ii)
[66] Minnesota Statute 181A.06, Subdivision 4
[67] MN/DOT Standard Specifications for Construction, Section 1701
[68] MN/DOT Standard Specifications for Construction, Section 1801
[69] MN/DOT Standard Specifications for Construction, Section 1906

2. The department may reject a bid from a prime contractor that has demonstrated continued or persistent noncompliance with the prevailing wage law on previous or current contracts with the department.[70]

3. The department may take the prosecution of the work out of the hands of the prime contractor, place the contractor in default and terminate this contract for failure to demonstrate compliance with these provisions.[71]

C. Any contractor who violates the state prevailing wage law is guilty of a misdemeanor and may be fined not more than $300 or imprisoned not more than 90 days or both. Each day that the violation continues is a separate offense.[72]

D. All required documents and certification reports are legal documents; willful falsification of the documents may result in civil action and/or criminal prosecution[73] and may be grounds for debarment proceedings.[74]

[70] Minnesota Statute 161.32, Subdivision 1(d)
[71] MN/DOT Standard Specifications for Construction, Section 1808
[72] Minnesota Statute 177.44, Subdivision 6
[73] Minnesota Statutes 16B, 161.315, Subdivision 2, 177.43,Subdivision 5 177.44, Subdivision 6, 609.63
[74] Minnesota Statute 161.315 and Minnesota Statute 609.63

NOTICE TO BIDDERS

Minnesota Statutes that require prompt payment to subcontractors:

471.425 Prompt payment of local government bills.

Subd. 1. Definitions. For the purposes of this section, the following terms have the meanings here given them.

(d) "Municipality" means any home rule charter or statutory city, county, town, school district, political subdivision or agency of local government. "Municipality" means the metropolitan council or any board or agency created under chapter 473.

Subd. 4a. Prompt payment to subcontractors.

Each contract of a municipality must require the prime contractor to pay any subcontractor within ten days of the prime contractor's receipt of payment from the municipality for undisputed services provided by the subcontractor. The contract must require the prime contractor to pay interest of 1-1/2 percent per month or any part of a month to the subcontractor on any undisputed amount not paid on time to the subcontractor. The minimum monthly interest penalty payment for an unpaid balance of $100 or more is $10. For an unpaid balance of less than $100, the prime contractor shall pay the actual penalty due to the subcontractor. A subcontractor who prevails in a civil action to collect interest penalties from a prime contractor must be awarded its costs and disbursements, including attorney's fees, incurred in bringing the action.

HIST: 1985 c 136 s 5; 1995 c 31 s 1

MINNESOTA DEPARTMENT OF LABOR AND INDUSTRY PREVAILING WAGES FOR STATE FUNDED CONSTRUCTION PROJECTS

THIS NOTICE MUST BE POSTED ON THE JOBSITE IN A CONSPICUOUS PLACE

Construction Type: Highway and Heavy

Region Number: 07

Counties within region:

- BLUE EARTH-07
- FARIBAULT-22
- LESUEUR-40
- NICOLLET-52
- SIBLEY-72
- WASECA-81

Effective: 2010-11-29

This project is covered by Minnesota prevailing wage statutes. Wage rates listed below are the minimum hourly rates to be paid on this project.

All hours worked in excess of eight (8) hours per day or forty (40) hours per week shall be paid at a rate of one and one half (1 1/2) times the basic hourly rate.

Violations should be reported to:

Department of Transportation
Office of Construction
Transportation Building MS650
John Ireland Blvd
St. Paul, MN 55155
(651) 366-4209

Refer questions concerning the prevailing wage rates to:

Department of Labor and Industry
Prevailing Wage Section
443 Lafayette Road N
St Paul, MN 55155
(651) 284-5091
DLI.PrevWage@state.mn.us

LABOR CODE AND CLASS	EFFECT DATE	BASIC RATE	FRINGE RATE	TOTAL RATE

101	LABORER, COMMON (GENERAL LABOR WORK)	2010-11-29	23.16	13.63	36.79
		2011-05-01	23.41	14.38	37.79
102	LABORER, SKILLED (ASSISTING SKILLED CRAFT JOURNEYMAN)	2010-11-29	23.16	13.63	36.79
		2011-05-01	23.41	14.38	37.79
103	LABORER, LANDSCAPING (GARDENER, SOD LAYER AND NURSERY OPERATOR)	2010-11-29	17.19	11.29	28.48
104	FLAG PERSON	2010-11-29	23.16	13.63	36.79
		2011-05-01	23.41	14.38	37.79
105	WATCH PERSON	FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREVWAGE@STATE.MN.US			
106	BLASTER	FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREVWAGE@STATE.MN.US			
107	PIPELAYER (WATER, SEWER AND GAS)	2010-11-29	25.16	13.63	38.79
		2011-05-01	25.41	14.38	39.79
108	TUNNEL MINER	FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREVWAGE@STATE.MN.US			
109	UNDERGROUND AND OPEN DITCH LABORER (EIGHT FEET BELOW STARTING GRADE LEVEL)	2010-11-29	23.86	13.63	37.49
		2011-05-01	24.11	14.38	38.49
110	SURVEY FIELD TECHNICIAN (OPERATE TOTAL STATION, GPS RECEIVER, LEVEL, ROD OR RANGE POLES, STEEL TAPE MEASUREMENT; MARK AND DRIVE STAKES; HAND OR POWER DIGGING FOR AND IDENTIFICATION OF MARKERS OR MONUMENTS; PERFORM AND CHECK CALCULATIONS; REVIEW AND UNDERSTAND CONSTRUCTION PLANS AND LAND SURVEY MATERIALS). THIS CLASSIFICATION DOES	2010-11-29	26.25	11.69	37.94

	NOT APPLY TO THE WORK PERFORMED ON A PREVAILING WAGE PROJECT BY A LAND SURVEYOR WHO IS LICENSED PURSUANT TO MINNESOTA STATUTES, SECTIONS 326.02 TO 326.15.				
111	TRAFFIC CONTROL PERSON (TEMPORARY SIGNAGE)	FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREVWAGE@STATE.MN.US			
112	QUALITY CONTROL TESTER (FIELD AND COVERED OFF-SITE FACILITIES; TESTING OF AGGREGATE, ASPHALT, AND CONCRETE MATERIALS); LIMITED TO MN DOT HIGHWAY AND HEAVY CONSTRUCTION PROJECTS WHERE THE MN DOT HAS RETAINED QUALITY ASSURANCE PROFESSIONALS TO REVIEW AND INTERPRET THE RESULTS OF QUALITY CONTROL TESTERS. SERVICES PROVIDED BY THE CONTRACTOR.	2010-11-29	17.49	4.18	21.67
201	ARTICULATED HAULER	2010-11-29	28.36	15.85	44.21
		2011-05-01	28.36	16.85	45.21
202	BOOM TRUCK	2010-11-29	28.36	15.85	44.21
		2011-05-01	28.36	16.85	45.21
203	LANDSCAPING EQUIPMENT, INCLUDES HYDRO SEEDER OR MULCHER, SOD ROLLER, FARM TRACTOR WITH ATTACHMENT SPECIFICALLY SEEDING, SODDING, OR PLANT, AND TWO-FRAMED FORKLIFT (EXCLUDING FRONT, POSIT-TRACK, AND SKID STEER LOADERS), NO EARTHWORK OR GRADING FOR ELEVATIONS	2010-11-29	19.00	0.00	19.00
204	OFF-ROAD TRUCK	2010-11-29	28.36	15.85	44.21
		2011-05-01	28.36	16.85	45.21
GROUP 2		2010-11-29	29.11	15.85	44.96
		2011-05-01	29.11	16.85	45.96
302	HELICOPTER PILOT (HIGHWAY AND HEAVY ONLY)				
303	CONCRETE PUMP (HIGHWAY AND HEAVY ONLY)				
304	ALL CRANES WITH OVER 135-FOOT BOOM, EXCLUDING JIB (HIGHWAY AND HEAVY ONLY)				

305 DRAGLINE, CRAWLER, HYDRAULIC BACKHOE (TRACK OR WHEEL MOUNTED) AND/OR OTHER SIMILAR EQUIPMENT WITH SHOVEL-TYPE CONTROLS THREE CUBIC YARDS AND OVER MANUFACTURER.S RATED CAPACITY INCLUDING ALL ATTACHMENTS. (HIGHWAY AND HEAVY ONLY)

306 GRADER OR MOTOR PATROL (HIGHWAY AND HEAVY ONLY)

307 PILE DRIVING (HIGHWAY AND HEAVY ONLY)

308 TUGBOAT 100 H.P. AND OVER WHEN LICENSE REQUIRED (HIGHWAY AND HEAVY ONLY)

GROUP 3	2010-11-29	28.66	15.85	44.51
	2011-05-01	28.66	16.85	45.51

309 ASPHALT BITUMINOUS STABILIZER PLANT (HIGHWAY AND HEAVY ONLY)

310 CABLEWAY (HIGHWAY AND HEAVY ONLY)

311 CONCRETE MIXER, STATIONARY PLANT (HIGHWAY AND HEAVY ONLY)

312 DERRICK (GUY OR STIFFLEG)(POWER)(SKIDS OR STATIONARY) (HIGHWAY AND HEAVY ONLY)

313 DRAGLINE, CRAWLER, HYDRAULIC BACKHOE (TRACK OR WHEEL MOUNTED) AND/OR SIMILAR EQUIPMENT WITH SHOVEL-TYPE CONTROLS, UP TO THREE CUBIC YARDS MANUFACTURER.S RATED CAPACITY INCLUDING ALL ATTACHMENTS (HIGHWAY AND HEAVY ONLY)

314 DREDGE OR ENGINEERS, DREDGE (POWER) AND ENGINEER (HIGHWAY AND HEAVY ONLY)

315 FRONT END LOADER, FIVE CUBIC YARDS AND OVER INCLUDING ATTACHMENTS. (HIGHWAY AND HEAVY ONLY)

316 LOCOMOTIVE CRANE OPERATOR (HIGHWAY AND HEAVY ONLY)

317 MIXER (PAVING) CONCRETE PAVING, ROAD MOLE, INCLUDING MUCKING OPERATIONS, CONWAY OR SIMILAR TYPE (HIGHWAY AND HEAVY ONLY)

318 MECHANIC . WELDER ON POWER EQUIPMENT (HIGHWAY AND HEAVY ONLY)

319 TRACTOR . BOOM TYPE (HIGHWAY AND HEAVY ONLY)

320 TANDEM SCRAPER (HIGHWAY AND HEAVY ONLY)

321 TRUCK CRANE . CRAWLER CRANE (HIGHWAY AND HEAVY ONLY)

322 TUGBOAT 100 H.P AND OVER (HIGHWAY AND HEAVY ONLY)

GROUP 4	2010-11-29	28.36	15.85	44.21
	2011-05-01	28.36	16.85	45.21

323 AIR TRACK ROCK DRILL (HIGHWAY AND HEAVY ONLY)

324 AUTOMATIC ROAD MACHINE (CMI OR SIMILAR) (HIGHWAY AND HEAVY ONLY)

325 BACKFILLER OPERATOR (HIGHWAY AND HEAVY ONLY)

326 CONCRETE BATCH PLANT OPERATOR (HIGHWAY AND HEAVY ONLY)

327 BITUMINOUS ROLLERS, RUBBER TIRED OR STEEL DRUMMED (EIGHT TONS AND OVER) (HIGHWAY AND HEAVY ONLY)

328 BITUMINOUS SPREADER AND FINISHING MACHINES (POWER), INCLUDING PAVERS, MACRO SURFACING AND MICRO SURFACING, OR SIMILAR TYPES (OPERATOR AND SCREED PERSON) (HIGHWAY AND HEAVY ONLY)

329 BROKK OR R.T.C. REMOTE CONTROL OR SIMILAR TYPE WITH ALL ATTACHMENTS (HIGHWAY AND HEAVY ONLY)

330 CAT CHALLENGER TRACTORS OR SIMILAR TYPES PULLING ROCK WAGONS, BULLDOZERS AND SCRAPERS (HIGHWAY AND HEAVY ONLY)

331 CHIP HARVESTER AND TREE CUTTER (HIGHWAY AND HEAVY ONLY)

332 CONCRETE DISTRIBUTOR AND SPREADER FINISHING MACHINE, LONGITUDINAL FLOAT, JOINT MACHINE, AND SPRAY MACHINE (HIGHWAY AND HEAVY ONLY)

333 CONCRETE MIXER ON JOBSITE (HIGHWAY AND HEAVY ONLY)

334 CONCRETE MOBIL (HIGHWAY AND HEAVY ONLY)

335 CRUSHING PLANT (GRAVEL AND STONE) OR GRAVEL WASHING, CRUSHING AND SCREENING PLANT (HIGHWAY AND HEAVY ONLY)

336 CURB MACHINE (HIGHWAY AND HEAVY ONLY)

337 DIRECTIONAL BORING MACHINE (HIGHWAY AND HEAVY ONLY)

338 DOPE MACHINE (PIPELINE) (HIGHWAY AND HEAVY ONLY)

339 DRILL RIGS, HEAVY ROTARY OR CHURN OR CABLE DRILL (HIGHWAY AND HEAVY ONLY)

340 DUAL TRACTOR (HIGHWAY AND HEAVY ONLY)

341 ELEVATING GRADER (HIGHWAY AND HEAVY ONLY)

342 FORK LIFT OR STRADDLE CARRIER (HIGHWAY AND HEAVY ONLY)

343 FORK LIFT OR LUMBER STACKER (HIGHWAY AND HEAVY ONLY)

344 FRONT END, SKID STEER OVER 1 TO 5 C YD

345 GPS REMOTE OPERATING OF EQUIPMENT (HIGHWAY AND HEAVY ONLY)

346 HOIST ENGINEER (POWER) (HIGHWAY AND HEAVY ONLY)

347 HYDRAULIC TREE PLANTER (HIGHWAY AND HEAVY ONLY)

348 LAUNCHER PERSON (TANKER PERSON OR PILOT LICENSE) (HIGHWAY AND HEAVY ONLY)

349 LOCOMOTIVE (HIGHWAY AND HEAVY ONLY)

350 MILLING, GRINDING, PLANNING, FINE GRADE, OR TRIMMER MACHINE (HIGHWAY AND HEAVY ONLY)

351 MULTIPLE MACHINES, SUCH AS AIR COMPRESSORS, WELDING MACHINES, GENERATORS, PUMPS (HIGHWAY AND HEAVY ONLY)

352 PAVEMENT BREAKER OR TAMPING MACHINE (POWER DRIVEN) MIGHTY MITE OR SIMILAR TYPE (HIGHWAY AND HEAVY ONLY)

353 PICKUP SWEEPER, ONE CUBIC YARD AND OVER HOPPER CAPACITY(HIGHWAY AND HEAVY ONLY)

354 PIPELINE WRAPPING, CLEANING OR BENDING MACHINE (HIGHWAY AND HEAVY ONLY)

355 POWER PLANT ENGINEER, 100 KWH AND OVER (HIGHWAY AND HEAVY ONLY)

356

POWER ACTUATED HORIZONTAL BORING MACHINE, OVER SIX INCHES (HIGHWAY AND HEAVY ONLY)

357 PUGMILL (HIGHWAY AND HEAVY ONLY)

358 PUMPCRETE (HIGHWAY AND HEAVY ONLY)

359 RUBBER-TIRED FARM TRACTOR WITH BACKHOE INCLUDING ATTACHMENTS (HIGHWAY AND HEAVY ONLY)

360 SCRAPER (HIGHWAY AND HEAVY ONLY)

361 SELF-PROPELLED SOIL STABILIZER (HIGHWAY AND HEAVY ONLY)

362 SLIP FORM (POWER DRIVEN) (PAVING) (HIGHWAY AND HEAVY ONLY)

363 TIE TAMPER AND BALLAST MACHINE (HIGHWAY AND HEAVY ONLY)

364 TRACTOR, BULLDOZER (HIGHWAY AND HEAVY ONLY)

365 TRACTOR, WHEEL TYPE, OVER 50 H.P. WITH PTO UNRELATED TO LANDSCAPING (HIGHWAY AND HEAVY ONLY)

366 TRENCHING MACHINE (SEWER, WATER, GAS) EXCLUDES WALK BEHIND TRENCHER (HIGHWAY AND HEAVY ONLY)

367 TUB GRINDER, MORBARK, OR SIMILAR TYPE (HIGHWAY AND HEAVY ONLY)

368 WELL POINT DISMANTLING OR INSTALLATION (HIGHWAY AND HEAVY ONLY)

GROUP 5	2010-11-29	25.79	15.85	41.64
	2011-05-01	25.79	16.85	42.64

369 AIR COMPRESSOR, 600 CFM OR OVER (HIGHWAY AND HEAVY ONLY)

370 BITUMINOUS ROLLER (UNDER EIGHT TONS) (HIGHWAY AND HEAVY ONLY)

371 CONCRETE SAW (MULTIPLE BLADE) (POWER OPERATED) (HIGHWAY AND HEAVY ONLY)

372 FORM TRENCH DIGGER (POWER) (HIGHWAY AND HEAVY ONLY)

373 FRONT END, SKID STEER UP TO 1C YD

374 GUNITE GUNALL (HIGHWAY AND HEAVY ONLY)

375 HYDRAULIC LOG SPLITTER (HIGHWAY AND HEAVY ONLY)

376 LOADER (BARBER GREENE OR SIMILAR TYPE) (HIGHWAY AND HEAVY ONLY)

377 POST HOLE DRIVING MACHINE/POST HOLE AUGER (HIGHWAY AND HEAVY ONLY)

378 POWER ACTUATED AUGER AND BORING MACHINE (HIGHWAY AND HEAVY ONLY)

379 POWER ACTUATED JACK (HIGHWAY AND HEAVY ONLY)

380 PUMP (HIGHWAY AND HEAVY ONLY)

381 SELF-PROPELLED CHIP SPREADER (FLAHERTY OR SIMILAR) (HIGHWAY AND HEAVY ONLY)

382 SHEEP FOOT COMPACTOR WITH BLADE . 200 H.P. AND OVER(HIGHWAY AND HEAVY ONLY)

383 SHOULDERING MACHINE (POWER) APSCO OR SIMILAR TYPE INCLUDING SELF-PROPELLED SAND AND CHIP SPREADER (HIGHWAY AND HEAVY ONLY)

384 STUMP CHIPPER AND TREE CHIPPER (HIGHWAY AND HEAVY ONLY)

385 TREE FARMER (MACHINE) (HIGHWAY AND HEAVY ONLY)

GROUP 6	2010-11-29	24.92	15.85	40.77
	2011-05-01	24.92	16.85	41.77

387 CAT, CHALLENGER, OR SIMILAR TYPE OF TRACTORS, WHEN PULLING DISK OR ROLLER (HIGHWAY AND HEAVY ONLY)

388 CONVEYOR (HIGHWAY AND HEAVY ONLY)

389 DREDGE DECK HAND (HIGHWAY AND HEAVY ONLY)

390 FIRE PERSON OR TANK CAR HEATER (HIGHWAY AND HEAVY ONLY)

391 GRAVEL SCREENING PLANT (PORTABLE NOT CRUSHING OR WASHING) (HIGHWAY AND HEAVY ONLY)

392 GREASER (TRACTOR) (HIGHWAY AND HEAVY ONLY)

393 LEVER PERSON (HIGHWAY AND HEAVY ONLY)

394 OILER (POWER SHOVEL, CRANE, TRUCK CRANE, DRAGLINE, CRUSHERS, AND MILLING MACHINES, OR OTHER SIMILAR HEAVY EQUIPMENT) (HIGHWAY AND HEAVY ONLY)

395 POWER SWEEPER (HIGHWAY AND HEAVY ONLY)

396 SHEEP FOOT ROLLER AND ROLLERS ON GRAVEL COMPACTION, INCLUDING VIBRATING ROLLERS (HIGHWAY AND HEAVY ONLY)

397 TRACTOR, WHEEL TYPE, OVER 50 H.P., UNRELATED TO LANDSCAPING

GROUP 1 FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREVWAGE@STATE.MN.US

501 HELICOPTER PILOT (COMMERCIAL CONSTRUCTION ONLY)

502 TOWER CRANE 250 FEET AND OVER (COMMERCIAL CONSTRUCTION ONLY)

503 TRUCK CRAWLER CRANE WITH 200 FEET OF BOOM AND OVER, INCLUDING JIB (COMMERCIAL CONSTRUCTION ONLY)

GROUP 2 FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREVWAGE@STATE.MN.US

504 CONCRETE PUMP WITH 50 METERS/164 FEET OF BOOM AND OVER (COMMERCIAL CONSTRUCTION ONLY)

505 PILE DRIVING WHEN THREE DRUMS IN USE (COMMERCIAL CONSTRUCTION ONLY)

506 TOWER CRANE 200 FEET AND OVER (COMMERCIAL CONSTRUCTION ONLY)

507 TRUCK OR CRAWLER CRANE WITH 150 FEET OF BOOM UP TO AND NOT INCLUDING 200 FEET, INCLUDING JIB (COMMERCIAL CONSTRUCTION ONLY)

GROUP 3 FOR RATE CALL 651-284-5091 OR EMAIL

DLI.PREVWAGE@STATE.MN.US

508 ALL-TERRAIN VEHICLE CRANES (COMMERCIAL CONSTRUCTION ONLY)

509 CONCRETE PUMP 32-49 METERS/102-164 FEET (COMMERCIAL CONSTRUCTION ONLY)

510 DERRICK (GUY & STIFFLEG) (COMMERCIAL CONSTRUCTION ONLY)

511 STATIONARY TOWER CRANE 200 FEET AND OVER MEASURED FROM BOOM FOOT PIN (COMMERCIAL CONSTRUCTION ONLY)

512 SELF-ERECTING TOWER CRANE 100 FEET AND OVER MEASURED FROM BOOM FOOT PIN (COMMERCIAL CONSTRUCTION ONLY)

513 TRAVELING TOWER CRANE (COMMERCIAL CONSTRUCTION ONLY)

514 TRUCK OR CRAWLER CRANE UP TO AND NOT INCLUDING 150 FEET OF BOOM, INCLUDING JIB (COMMERCIAL CONSTRUCTION ONLY)

GROUP 4

FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREVWAGE@STATE.MN.US

515 CRAWLER BACKHOE INCLUDING ATTACHMENTS (COMMERCIAL CONSTRUCTION ONLY)

516 FIREPERSON, CHIEF BOILER LICENSE (COMMERCIAL CONSTRUCTION ONLY)

517 HOIST ENGINEER (THREE DRUMS OR MORE) (COMMERCIAL CONSTRUCTION ONLY)

518 LOCOMOTIVE (COMMERCIAL CONSTRUCTION ONLY)

519 OVERHEAD CRANE (INSIDE BUILDING PERIMETER) (COMMERCIAL CONSTRUCTION ONLY)

520 TRACTOR . BOOM TYPE (COMMERCIAL CONSTRUCTION ONLY)

GROUP 5

FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREVWAGE@STATE.MN.US

521 AIR COMPRESSOR 450 CFM OR OVER (TWO OR MORE MACHINES) (COMMERCIAL CONSTRUCTION ONLY)

522 CONCRETE MIXER (COMMERCIAL CONSTRUCTION ONLY)

523 CONCRETE PUMP UP TO 31 METERS/101 FEET OF BOOM

524 DRILL RIGS, HEAVY ROTARY OR CHURN OR CABLE DRILL WHEN USED FOR CAISSON FOR ELEVATOR OR BUILDING CONSTRUCTION (COMMERCIAL CONSTRUCTION ONLY)

525 FORKLIFT (COMMERCIAL CONSTRUCTION ONLY)

526 FRONT END, SKID STEER 1 TO 5 C YD

527 HOIST ENGINEER (ONE OR TWO DRUMS) (COMMERCIAL CONSTRUCTION ONLY)

528 MECHANIC-WELDER (ON POWER EQUIPMENT) (COMMERCIAL CONSTRUCTION ONLY)

529 POWER PLANT (100 KW AND OVER OR MULTIPLES EQUAL TO 100KW AND OVER) (COMMERCIAL CONSTRUCTION ONLY)

530 PUMP OPERATOR AND/OR CONVEYOR (TWO OR MORE MACHINES) (COMMERCIAL CONSTRUCTION ONLY)

531 SELF-ERECTING TOWER CRANE UNDER 100 FEET MEASURED FROM BOOM FOOT PIN (COMMERCIAL CONSTRUCTION ONLY)

532 STRADDLE CARRIER (COMMERCIAL CONSTRUCTION ONLY)

533 TRACTOR OVER D2 (COMMERCIAL CONSTRUCTION ONLY)

534 WELL POINT PUMP (COMMERCIAL CONSTRUCTION ONLY)

GROUP 6

FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREVWAGE@STATE.MN.US

535 CONCRETE BATCH PLANT (COMMERCIAL CONSTRUCTION ONLY)

536 FIREPERSON, FIRST CLASS BOILER LICENSE (COMMERCIAL CONSTRUCTION ONLY)

537 FRONT END, SKID STEER UP TO 1 C YD

538 GUNITE MACHINE (COMMERCIAL CONSTRUCTION ONLY)

539 TRACTOR OPERATOR D2 OR SIMILAR SIZE (COMMERCIAL CONSTRUCTION ONLY)

540 TRENCHING MACHINE (SEWER, WATER, GAS) EXCLUDES WALK BEHIND TRENCHER

GROUP 7

FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREVWAGE@STATE.MN.US

541 AIR COMPRESSOR 600 CFM OR OVER (COMMERCIAL CONSTRUCTION ONLY)

542 BRAKEPERSON (COMMERCIAL CONSTRUCTION ONLY)

543 CONCRETE PUMP/PUMPCRETE OR COMPLACO TYPE (COMMERCIAL CONSTRUCTION ONLY)

544 FIREPERSON, TEMPORARY HEAT SECOND CLASS BOILER LICENSE (COMMERCIAL CONSTRUCTION ONLY)

545 OILER (POWER SHOVEL, CRANE, TRUCK CRANE, DRAGLINE, CRUSHERS AND MILLING MACHINES, OR OTHER SIMILAR POWER EQUIPMENT) (COMMERCIAL CONSTRUCTION ONLY)

546 PICK UP SWEEPER (ONE CUBIC YARD HOPPER CAPACITY) (COMMERCIAL CONSTRUCTION ONLY)

547 PUMP AND/OR CONVEYOR (COMMERCIAL CONSTRUCTION ONLY)

GROUP 8

FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREVWAGE@STATE.MN.US

548 ELEVATOR OPERATOR (COMMERCIAL CONSTRUCTION ONLY)

549 GREASER (COMMERCIAL CONSTRUCTION ONLY)

550 MECHANICAL SPACE HEATER (TEMPORARY HEAT NO BOILER LICENSE REQUIRED) (COMMERCIAL CONSTRUCTION ONLY)

GROUP 1	2010-11-29	18.30	7.55	25.85

601 MECHANIC . WELDER				
602 TRACTOR TRAILER DRIVER				
603 TRUCK DRIVER (HAULING MACHINERY INCLUDING OPERATION OF HAND AND POWER OPERATED WINCHES)				
GROUP 2	2010-11-29	24.25	13.15	37.40
604 FOUR OR MORE AXLE UNIT, STRAIGHT BODY TRUCK				
GROUP 3	2010-11-29	24.15	13.15	37.30
605 BITUMINOUS DISTRIBUTOR DRIVER				
606 BITUMINOUS DISTRIBUTOR (ONE PERSON OPERATION)				
607 THREE AXLE UNITS				
GROUP 4	2010-11-29	23.95	13.15	37.10
608 BITUMINOUS DISTRIBUTOR SPRAY OPERATOR (REAR AND OILER)				
609 DUMP PERSON				
610 GREASER				
611 PILOT CAR DRIVER				
612 RUBBER-TIRED, SELF-PROPELLED PACKER UNDER 8 TONS				
613 TWO AXLE UNIT				
614 SLURRY OPERATOR				
615 TANK TRUCK HELPER (GAS, OIL, ROAD OIL, AND WATER)				
616 TRACTOR OPERATOR, UNDER 50 H.P.				
701 HEATING AND FROST INSULATORS	2010-11-29	19.50	0.00	19.50
702 BOILERMAKERS	FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREVWAGE@STATE.MN.US			
703 BRICKLAYERS	FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREVWAGE@STATE.MN.US			
704 CARPENTERS	2010-11-29	25.98	12.41	38.39
705 CARPET LAYERS (LINOLEUM)	FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREVWAGE@STATE.MN.US			

706	CEMENT MASONS	2010-11-29	31.55	17.00	48.55
707	ELECTRICIANS	2010-11-29	31.08	15.15	46.23
708	ELEVATOR CONSTRUCTORS	FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREVWAGE@STATE.MN.US			
709	GLAZIERS	FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREVWAGE@STATE.MN.US			
710	LATHERS	FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREVWAGE@STATE.MN.US			
711	GROUND PERSON	FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREVWAGE@STATE.MN.US			
712	IRONWORKERS	2010-11-29	33.80	20.37	54.17
		2011-05-01	34.10	20.37	54.47
713	LINEMAN	FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREVWAGE@STATE.MN.US			
714	MILLWRIGHT	FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREVWAGE@STATE.MN.US			
715	PAINTERS (INCLUDING HAND BRUSHED, HAND SPRAYED, AND THE TAPING OF PAVEMENT MARKINGS)	2010-11-29	22.25	5.63	27.88
716	PILEDRIVER (INCLUDING VIBRATORY DRIVER OR EXTRACTOR FOR PILING AND SHEETING OPERATIONS)	2010-11-29	29.43	13.69	43.12
717	PIPEFITTERS . STEAMFITTERS				

		FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREVWAGE@STATE.MN.US			
718	PLASTERERS	FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREVWAGE@STATE.MN.US			
719	PLUMBERS	2010-11-29	27.67	18.12	45.79
720	ROOFER	FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREVWAGE@STATE.MN.US			
721	SHEET METAL WORKERS	FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREVWAGE@STATE.MN.US			
722	SPRINKLER FITTERS	FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREVWAGE@STATE.MN.US			
723	TERRAZZO WORKERS	FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREVWAGE@STATE.MN.US			
724	TILE SETTERS	FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREVWAGE@STATE.MN.US			
725	TILE FINISHERS	FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREVWAGE@STATE.MN.US			
726	DRYWALL TAPER	FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREVWAGE@STATE.MN.US			
727	WIRING SYSTEM TECHNICIAN	FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREVWAGE@STATE.MN.US			

728 WIRING SYSTEMS INSTALLER	FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREVWAGE@STATE.MN.US
729 ASBESTOS ABATEMENT WORKER	FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREVWAGE@STATE.MN.US
730 SIGN ERECTOR	FOR RATE CALL 651-284-5091 OR EMAIL DLI.PREVWAGE@STATE.MN.US

DEPARTMENT OF LABOR AND INDUSTRY **May 10, 2010**

LABOR STANDARDS UNIT

NOTICE OF CERTIFICATION OF TRUCK RENTAL RATES AND EFFECTIVE DATE PURSUANT TO *MINNESOTA RULES,* PART 5200.1105

On May 10, 2010 the commissioner certified the minimum truck rental rates for highway projects in the state's ten highway and heavy construction areas for trucks and drivers operating "operating "five or more axle units, straight body trucks," "four axle units, straight body trucks," "three axle units," "tractor only," and "tractor trailers." The certification by the commissioner came after Notice of Determination of Truck Rental Rates by the commissioner, including the determination of truck operating costs, was published in the *State Register* on March 22, 2010 and the informal conference pursuant to *Minnesota Rules*, Part 5200.1105 to receive further public input prior to certification was held at the department on April 12, 2010.

The operating costs were determined by survey on a statewide basis. The operating cost for five or more axle units, straight body trucks" is determined to be $44.46 per hour. The operating cost for "four axle units, straight body trucks" is determined to be $36.81 per hour. The operating cost for "three axle units" is determined to be $37.35 per hour. The operating cost for "tractor only" is determined to be $41.58 per hour. The operating cost for "trailer only" is determined to be $11.46 per hour. The operating cost for "tractor trailers" is determined to be $53.04 per hour.

Adding the prevailing wage for drivers of these five types of trucks from each of the State's ten highway and heavy construction areas to the operating costs, the minimum hourly truck rental rate for the five types of trucks in each area is determined to be as follows:

	Tractor Trailer	Five or more axle	Four axle	Three Axle	Tractor only
Region 1	92.79	83.66	76.01	76.45	81.33
Region 2	86.46	77.37	69.72	63.30	75.00
Region 3	75.41	67.58	59.93	61.14	63.95
Region 4	74.47	65.36	57.71	70.11*	63.01
Region 5	89.99	68.31	60.66	64.08	78.53
Region 6	90.99	81.86	74.21	74.65	79.53
Region 7	86.46	77.37	69.72	70.11*	75.00
Region 8	79.42	65.21	57.56	50.82	67.96
Region 9	93.19	84.06	76.41	76.85	81.73
Region 10	86.46	77.37	69.72	50.12	75.00

*Correction to prevailing wage labor rate in Regions 4 & 7 effective May 10, 2010 from $33.01 to $32.76.

The operating costs, including the average truck broker fee paid by those survey respondents who reported paying truck broker fees, and the truck rental rates may also be reviewed by accessing the department's web site at www.dli.mn.gov. Questions regarding the operational costs and truck rental rates can be answered by calling (651)284-5091.

The minimum truck rental rates certified for these five types of trucks in the state's ten highway and heavy construction areas will be effective for all highway and heavy construction projects financed in whole or part with state funds advertised for bid on or after May 10, 2010.

STEVE SVIGGUM
COMMISSIONER

NOTIFICATION FORM ON DISPOSAL OF BRIDGE STEEL

The Contractor is required to provide certain information on disposal of bridge steel which has been painted with lead-based paint. By signing this document, the Contractor certifies that information supplied by the Contractor is correct and that the Contractor is familiar with proper handling and disposal of materials with lead-based paint. This information must be furnished to the Project Engineer a minimum of 30 days prior to removal of the bridge steel from the project site. Any change in method or location of disposal would require resubmittal and a 30 day notice.

Mn/DOT Project No._____ **Bridge No.**_____

Description of Bridge Steel_____

Paint System is Mn/DOT Spec. _____ , _____
(Primer) **(Top Coat)**

Project Engineer: _____

Contractor/Subcontractor: _____
(Name, mailing address, telephone no.)

_____

I _____ certify that the following information is correct:
(print name of authorized representative)

The above bridge steel will be disposed of by the following method(s): _____
(list name,

_____
address and telephone no. of recipient, estimated delivery date, and intended use.)

_____

_____

I also certify that _____ is familiar with
(Contractor/Subcontractor name)
the requirements in OSHA 29 CFR 1926.62 relating to lead, precautions to be taken when working with lead, and proper handling and disposal of materials with lead-based paint systems and that _____ has been notified of the presence of lead-based paint.
(name of recipient)

_____ _____
(signature) **(date)**

Received by Project Engineer/Inspector: _____ _____
(date) **(signature)**

cc: Project File
Office of Environmental Services

SPECIAL PROVISIONS
DIVISION A
SPECIAL REQUIREMENTS

INTENT OF CONTRACT

This Contract consists of grading, aggregate base, bituminous paving, and drainage on the following:

Bridge no. 07593	County Road	164	-	SAP 07-598-27
Bridge no. 07547	Beauford Township Road	337	-	SAP 07-599-53

Each road shall be considered individually on the schedule of prices in the proposal but only the grand total of all the roads combined will be considered in awarding the contract. Bids not including all projects will not be accepted.

GOVERNING SPECIFICATIONS

The State of Minnesota, Department of Transportation "Standard Specifications for Construction" 2005 EDITION shall apply in this contract, except as modified or altered in the following Special Provisions.

SPECIAL PROVISIONS
DIVISION S
SPECIAL REQUIREMENTS

(1208) PROPOSAL GUARANTY

No proposal will be considered unless it is accompanied by a guaranty complying with the requirements of Specification 1208 and providing a penal sum at least equal to 5 percent of the total amount of the bid (under all circumstances and without exception) as provided in Specification 1208.

WORK BY OTHERS

Traffic control devices for control of traffic will be provided at both ends of the project at the ends of C.R. 164 and Twp. Rd. 337, and be installed and maintained by Blue Earth County at no cost to the Contractor. The Contractor shall provide and install barricades, fencing, and any other needed traffic control around his work site and equipment.

PERMITS

Blue Earth County has applied for an Army Corps of Engineers Permit to place fill in wetland areas for C.R. 164. The Permit is expected to be received prior to bid opening. Until that time no fill may be placed in wetlands until the permit is received.

(1305) REQUIREMENT OF CONTRACT BOND

The provisions of Mn/DOT 1305 are hereby deleted and replaced with the following:

The successful bidder shall furnish a payment bond equal to the contract amount and a performance bond equal to the contract amount as required by Minnesota Statutes, section 574.26. The surety and form of the bonds shall be subject to the approval of the contracting authority.

The contracting authority shall require for all contracts less than or equal to five million dollars ($5,000,000.00), that the aggregate liability of the payment and performance bonds shall be twice the

amount of the contract. All contracts in excess of five million dollars ($5,000,000.00) shall have an aggregate liability equal to the amount of the contract.

(1404) MAINTENANCE OF TRAFFIC, (1707) PUBLIC SAFETY, AND (2563) TRAFFIC CONTROL

The provisions of 1404 are supplemented as follows:

The Contractor shall furnish, install, maintain, and remove all traffic control devices required to provide safe movement of vehicular and/or pedestrian traffic passing through the work zone during the life of the Contract from the start of Contract operations to the final completion thereof. The Engineer will have the right to modify the requirements for traffic control as deemed necessary due to existing field conditions.

Traffic control devices include, but are not limited to, barricades, warning signs, trailers, flashers, cones, drums, pavement markings and flaggers as required and sufficient barricade weights to maintain barricade stability.

The Contractor shall furnish names, addresses, and phone numbers of at least three (3) individuals responsible for the placement and maintenance of traffic control devices. At least one of these individuals shall be "on call" 24 hours per day, seven days per week during the times any traffic control devices, furnished and installed by the Contractor, are in place. The required information shall be submitted to the Engineer at the Pre-construction Conference. The Contractor shall also furnish the names, addresses, and phone numbers of those individuals to the following:

1. Local Agency Highway/Public Works Department	(507) 304-4025
2. Local County/City Sheriff's/Police Department	(507) 387-8710
3. Local Fire Department	911
4. City/Township Clerk	(507) 524-4355 Beauford Twp. (507) 869-3317 MedoTwp.

The Contractor shall, at the pre-construction conference, designate a Work Zone Safety Coordinator who shall be responsible for safety and traffic control management in the Project work zone. The Work Zone Safety Coordinator shall be either an employee of the Contractor such as a superintendent or a foreman, or an employee of a firm which has a subcontract for overall work zone safety and traffic control management for the Project. The responsibilities of the Work Zone Safety Coordinator shall include, but not be limited to:

- Coordinating all work zone traffic control operations of the Project, including those of the Contractor, subcontractors and suppliers.
- Establishing contact with local school district, government, law enforcement, and emergency response agencies affected by construction before work begins.
- Maintaining a record of all known crashes within a work zone. This record should include all available information, such as: time of day, probable cause, location, pictures, sketches, weather conditions, interferences to traffic, etc. These records shall be made available to the Engineer upon request.

The Contractor shall inspect, on a daily basis, all traffic control devices, which the Contractor has furnished and installed, and verify that the devices are placed in accordance with the Traffic Control Layouts, these Special Provisions, and/or the MN MUTCD. Any discrepancy between the placement and the required placement shall be immediately corrected. The person performing the inspection shall be required to make a daily log. This log shall also include the date and time any changes in the stages, phases, or portions thereof go into effect. The log shall identify the location and verify that the devices are placed as directed or corrected in accordance with the Plan. All entries in the log shall include the date and time of the entry and be signed by the person making the inspection. The Engineer reserves the right to request copies of the

logs as he deems necessary.

Measurement and Payment:
All traffic control required under this Contract shall be performed as incidental work for which no direct payment will be made.

(1507) UTILITY PROPERTY AND SERVICE
Construction operations in the proximity of utility properties shall be performed in accordance with the provisions of Mn/DOT 1507, except as modified below:

All utilities that relate to this Project are classified as "Level D," unless the Plans specifically state otherwise. This utility quality level was determined according to the guidelines of CI/ASCE 38-02, entitled "Standard Guidelines for the Collection and depiction of existing subsurface utility data."

By bidding on this Contract, the bidder agrees that it shall use the Plan to identify the location of Mn/DOT drainage facilities as satisfying the requirements of Minnesota Statutes Ch. 216D and Minnesota Rules 7560.0250 with respect to Mn/DOT's storm water drainage facilities.

The following utility owners have existing facilities that may be affected by the work under this Contract, all of which they intend where necessary to relocate or adjust in advance of or concurrently with the Contractor's operations.

Benco Electric
Rick Alfred
PO Box 8
Mankato, MN 56002
507-387-7963
ricka@benco.org

Hickory Tech
Mike Holmin
221 E. Hickory St., PO Box 3288
Mankato, MN 56002-3288
507-387-1843
Mike.holmin@hickorytech.com

See http://www.dot.state.mn.us/utility for utility operators contact list.

The State's Contractor shall coordinate his/her work and cooperate with the foregoing utility owners and their forces in a manner consistent with the provisions of Mn/DOT 1507 and the applicable provisions of Mn/DOT 1505.

(1508) CONSTRUCTION STAKES, LINES, AND GRADES - MODIFIED
Section 1508 is hereby supplemented to include the following:

The Contractor shall give the Engineer 48-hour notice of request for construction stakes.

(1513) RESTRICTIONS ON MOVEMENT AND STORAGE OF HEAVY LOADS AND EQUIPMENT
The provisions of Mn/DOT 1513 are hereby deleted and replaced with the following:

The hauling or storage of materials and/or the movement and storage of equipment to and from the Project and over completed structures, base courses, and pavements within the Project that are open for use by traffic and are to remain a part of the permanent improvement, shall comply with the regulations governing the operation of vehicles on the highways of Minnesota, as prescribed in the Highway Traffic Regulation Act.

The Contractor shall comply with legal load restrictions, and with any special restrictions imposed by the Contract, in hauling or storing materials, moving or storing equipment on structures, completed subgrades, base courses, and pavements within the Project that are under construction, or have been completed but have not been accepted and opened for use by traffic.

The Contractor shall have a completed Weight Information Card in each vehicle used for hauling bituminous mixture, aggregate, batch concrete, and grading material (including borrow and excess) prior to starting work. This card shall identify the truck or tractor and trailer by Minnesota or prorated license number and shall contain the tare, maximum allowable legal gross mass, supporting information, and the signature of the owner. The card shall be available to the Engineer upon request. All Contractor-related costs in providing, verifying, and spot checking the cab card information (including weighing trucks on certified commercial scales, both empty and loaded) will be incidental, and no compensation other than for Plan pay items will be made.

Equipment mounted on crawler tracks or steel-tired wheels shall not be operated on or across concrete or bituminous surfaces without specific authorization from the Engineer. Special restrictions may be imposed by the Contract with respect to speed, load distribution, surface protection, and other precautions considered necessary.

Should construction operations necessitate the crossing of an existing pavement, bridges or completed portions of the pavement structure with equipment or loads that would otherwise be prohibited, approved methods of load distribution or bridging shall be provided by the Contractor at no expense to the Department.

Neither by issuance of a special permit, nor by adherence to any other restrictions imposed, shall the Contractor be relieved of liability for damages resulting from the operation and movement of construction equipment.

Unless specifically allowed in the Contract, or approved by the Engineer, all construction material and/or equipment which might be temporarily stored or parked on a bridge deck while the bridge is under construction will be limited by this specification. These requirements are intended to limit construction loads to levels commensurate with the typical design live load. The storage of materials and equipment as a whole will be limited to all of the following:

- Stockpiles of material are limited to a maximum weight of 31,702 kg/100 m2 (**65,000 lbs./1000 ft2**).
- Individual material stockpiles (including but not limited to pallets of products, reinforcing bar bundles, aggregate piles) are limited to a maximum weight of 12,200 kg/10 m2 (**25,000 lbs./100 ft2**).
- Combinations of vehicles, materials, and other equipment are limited to a maximum weight of 90,700 kg (**200,000 lbs.**) per span providing span lengths are over 40 feet long.

The Contractor may submit alternate loadings to the Project Engineer 30 Calendar days prior to placement. Any submittals will require the calculations be certified by a Professional Engineer.

(1514) MAINTENANCE DURING CONSTRUCTION

The provisions of Mn/DOT 1514 are supplemented with the following:

In addition to the Contractor's requirements for sweeping as required under Mn/DOT 2051 (Maintenance and Restoration of Haul Roads), the Engineer may require additional sweeping of roads adjacent to the construction site to provide safe conditions for the traveling public, environmental reasons, local regulatory requirements or as otherwise directed by the Engineer.

Payment for additional sweeping ordered by the Engineer will be made as specified below. (This price represents a shared cost.)

Pick Up Broom W/Operator $55.00 per hour

Self Propelled Pavement Broom W/Operator $30.00 per hour

(1517) CLAIMS FOR COMPENSATION ADJUSTMENT

The provisions of Mn/DOT 1517 are hereby supplemented with the following:

NOTICE OF CLAIM:

At the time the Contractor gives written notice of the claim, the Contractor and the Department shall immediately begin to keep and maintain complete and specific records to the extent possible. The records shall consist of, but are not limited to, cost and schedule records concerning the details of the perceived claim.

Unless otherwise agreed to in writing, the Contractor shall continue with and carry on the work and progress during the pendency of any claim, dispute, decision or determination by the Engineer, and any arbitration proceedings.

SUBMISSION OF CLAIMS:

The Contractor shall submit the claim to the Engineer no later than 60 Calendar Days after receiving written notice from the Engineer that direct damages (money or time due) resulting from the claim has occurred in the opinion of the Engineer. If, in the opinion of the Contractor, the direct damages have not fully occurred, the Contractor shall provide written justification detailing why the direct damages have not fully occurred. This written justification shall be submitted to the Engineer no later than 30 Calendar Days from receiving the notice from the Engineer. If proper justification is not given as required within the 30 Calendar Day requirement or the claim is not submitted to the Engineer within 60 Calendar Days after receiving notice from the Engineer that the direct damages have occurred, the Contractor waives all claims for additional compensation in connection with the work already performed.

The contents of the claim shall be in accordance with Mn/DOT 1517 and shall also include all scheduling documentation related to the claim

The Engineer shall have access to the Contractors records involved in the claim and, when so requested, shall furnish the Engineer copies of claim documentation.

The Contractor shall promptly furnish any clarification and additional information or data requested in writing by the Engineer.

All claims shall be submitted through the Contractor. Submission of claims directly from subcontractors shall constitute a waiver of that portion of the claim.

DECISION ON CLAIMS:

The Department intends to resolve claims at the lowest possible administrative level. Upon receipt of the claim, the Engineer will make a written decision in relation to any claim presented by the Contractor within the following time frames:

(A) For an adjustment in compensation, or other contractual dispute between the parties where the amount in controversy is $75,000.00 or less, 60 Calendar Days from the receipt of the Contractor's claim;

(B) For an adjustment in compensation, or other contractual dispute between the parties where the amount in controversy is more than $75,000.00, 90 Calendar Days from the receipt of the Contractor's claim.

Unless the Contractor and the Engineer otherwise stipulate in writing to a later time, if the Engineer does not make a decision or determination within these time frames, the claim shall be deemed denied.

When the Contract has established a dispute resolution process, that moves the dispute through various levels of both organizations, this process shall also be completed within the above time period.

MEDIATION

Notwithstanding the formal claims procedures set forth in this Special Provision, the parties may at any time enter into nonbinding mediation by mutual agreement. If the parties agree to mediation, then the time requirements set forth above in Section (A) and (B) are suspended until the mediation is completed. The time and place for mediation, as well as selection of the mediator, shall be established by mutual agreement. The mediator's costs shall be divided equally between the Contractor and the Department. This payment shall be accomplished by the Contractor paying in full all costs and fees for the mediator and then submit the bill to the Engineer for 50 percent reimbursement. Either party may terminate mediation at any time.

RIGHTS OF ARBITRATION:

The decision of the Engineer in relation to the Contractor's claim shall be deemed final unless the Contractor commences a legal action within the time prescribed by law or unless the Contractor invokes arbitration as prescribed hereafter in these Special Provisions. Nothing herein contained shall be so construed as to preclude the Contractor from commencing a legal action in relation to claims for a single issue in excess of $75,000.00 but the Contractor's sole legal remedy in relation to claims of $75,000.00 or less shall be arbitration as prescribed hereafter in these Special Provisions. If the claim amount is in excess of $75,000, the Contractor and Mn/DOT may mutually agree to arbitration.

If the Contractor seeks to arbitrate a claim of $75,000 or less, the Contractor shall submit a written request for arbitration to the Department's Claims Engineer in Mn/DOT's Central Office within 30 Calendar Days after the Contractor's receipt of the Engineer's decision. Failure to reasonably conform with this time requirement waives the right to arbitration. The scope of the arbitration proceeding shall be limited to the claim(s) that the Contractor previously presented to the Engineer for decision

ARBITRATION OF CLAIMS AND DISPUTES:

(A) For purposes of this section, a claim for adjustment in compensation shall mean an aggregate of operative facts which give rise to the rights which the Contractor seeks to enforce. Stated another way, a claim is the event, transaction, or set of facts that give rise to a claim for compensation. Any Contractor having a claim in excess of $75,000.00 may waive or abandon the dollar amount in excess of $75,000.00 so as to bring the claim within the scope of this section. However, the arbitration award shall not exceed $75,000.00. Various damages claimed by the Contractor for a single claim may not be divided into separate proceedings to create claims within the $75,000.00 limit.

(B) More than one separate claim may be presented at each arbitration hearing if agreed to by the Department, the Contractor, and the Arbitrator.

(C) Selection of the Arbitrator/ Optional Use of the American Arbitration Association:

a. Selection of the arbitrator shall be conducted by one representative of the Department and one representative of the Contractor. A single person shall represent the prime and all

subcontractors involved in the claim. Separate representation for subcontractors during the selection of the arbitrator is not allowed.

b. The parties may mutually agree to have the arbitration process administered by the American Arbitration Association ("AAA").

c. The arbitration shall be administered by a single arbitrator.

d. The parties shall select an arbitrator by mutual agreement, or, if the parties have agreed to use the AAA to administer the process, shall select an arbitrator from a list of arbitrators provided by the Association in accordance with the Association's procedures.

(D) Arbitration Proceedings and Decision

a. All arbitration of claims shall be conducted in Minneapolis, Minnesota, or another mutually agreed upon location.

b. Regardless of whether the parties have agreed to use AAA to administer the process, the arbitration proceeding shall be in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association then in effect and in accordance with the requirements below. The arbitration procedures set-forth in this Special Provision shall take precedence over conflicting American Arbitration Association requirements.

c. If mutually agreed to by both parties, the arbitration proceeding shall follow the Fast Track rules of the American Arbitration Association.

d. Unless otherwise agreed to by the parties, the arbitration hearing shall be bifurcated into a liability phase and, if needed, a valuation phase. No evidence or testimony regarding the value of the claim shall be presented during the liability phase.

e. The Contractor shall first present evidence to support the claim. The Department will then present evidence supporting its defense. Witnesses shall submit to questions or examinations. The arbitrator has the discretion to vary this procedure and shall afford a full and equal opportunity to all parties to be heard. Exhibits, when offered by either party, may be received in evidence by the arbitrator.

f. The arbitrator shall entertain motions, including motions that dispose of all or part of a claim or that may expedite the proceedings.

g. There shall be no ex parte communication between any party and an arbitrator.

h. When satisfied that the presentation of the parties is complete, the arbitrator shall declare the liability phase of the arbitration hearing closed. The arbitrator shall then determine whether Mn/DOT is liable.

i. If the Department is found to be liable, the arbitration proceeding shall continue before the same arbitrator to resolve all damages issues. The proceedings for this portion of the arbitration shall follow the procedures outlined in Section 6(D)e of this Special Provision.

j. Within three Calendar Days after the close of the damages portion of the hearing, each party shall submit to the arbitrator their last best offers. The arbitrator shall be limited to awarding only one of the two figures submitted. In no event shall a claim award in arbitration exceed $75,000.

k. The decision or award of the arbitrator shall be:

   i. In writing showing the basis for the decision or award. The arbitrator shall use the Contract and Minnesota law, or, in the absence of Minnesota law on the issue(s), other

persuasive authority, as the basis for the decision.

ii. Final and binding on both the Department and the Contractor.

The award shall have the same finality as is accorded awards under the Uniform Arbitration Act, Minnesota Statutes Chapter 572.

(E) Arbitration Costs

a. Each party to the arbitration shall bear its own costs and fees assessed by the American Arbitration Association or independent arbitrator which shall be divided equally between the parties to the arbitration. This payment will be accomplished by the Contractor paying in full all costs and fees for the arbitrator and then submit the bill to the Engineer for 50 percent reimbursement.

b. Each party shall bear its own preparation costs.

(1701) LAWS TO BE OBSERVED (DATA PRACTICES)

The provisions of Mn/DOT 1701 are supplemented with the following:

Bidders are advised that all data created, collected, received, maintained, or disseminated by the Contractor and any subcontractors in performing the work contained in this Contract are subject to the requirements of MN Statute Chapter 13, the Minnesota Government Data Practices Act (MGDPA). The Contractor shall comply with the requirements of the MGDPA in the same manner as the Department. The Contractor does not have a duty to provide access to public data to the public if the public data are available from the Department, except as required by the terms of the Contract.

(1701) LAWS TO BE OBSERVED (BRIDGE)

The provisions of Mn/DOT 1701 are modified and/or supplemented with the following:

The Contractor shall use Mn/DOT approved companies for testing, waste transport and disposal as provided and described in Mn/DOT's manual "Asbestos and Regulated Waste Manual For Structure Demolition Or Relocations for Construction Projects" available on the following website: http://www.dot.state.mn.us/environment/regulated-materials/index.html. Contact Mark Vogel, Office of Environmental Services, 651.366.3630 with any questions regarding the manual.

The Contractor shall only use Mn/DOT approved contractors for: building/bridge assessments, asbestos abatement and regulated waste oversight, asbestos removal, regulated waste removal, and regulated waste disposal and recycling (for a list of Mn/DOT Approved Contractors call 651.366.3630).

The Contractor shall use only MPCA permitted Combined Solid Waste Disposal Facilities to dispose of all solid waste including demolition debris. Demolition debris shall not be disposed of in a permit-by-rule landfill.

The successful bidding Contractor shall:

(A) Comply with the Environmental Protection Agency (EPA) Regulations, 40 CFR pt. 61, subd.M - NATIONAL EMISSION STANDARD FOR ASBESTOS.

(B) Provide the Minnesota Pollution Control Agency (MPCA) and The Mn/DOT Project Engineer written notice of intention to demolish or move a structure - see form "Notification of Intent to Perform a Bridge Demolition for Mn/DOT Operations" at http://www.dot.state.mn.us/environment/reg_mat/bldg_demo.html. Such notice shall be provided to the MPCA and the Mn/DOT Project Engineer a minimum of 10 working days before any move or demolition.

(C) And if the bridge contains any asbestos, the Contractor shall:

(1) Use a Minnesota Department of Health (MDH) certified oversight contractor to oversee the MDH certified asbestos abatement contractor.

(2) Depending on the amounts and types of asbestos on the premises Submit "Notification of Asbestos Related Work", to the Minnesota Pollution Control Agency and the Mn. Department of Health 10 working days prior to commencement of abatement activities. The Contractor shall submit a copy of the completed notification/s to The Mn/DOT Project Engineer at the same time.

(3) Submit all required documentation to the Minnesota Pollution Control Agency and the Mn Department of Health to the respective regulatory agencies and copy the Mn/DOT Project Engineer on all submittals. Information on the requirements of MPCA can be found at: http://www.pca.state.mn.us/programs/asbestos_p.html. Information on the requirements of the Department of Health can be found at: http://www.health.state.mn.us/divs/eh/asbestos/index.html.

(4) Transport all asbestos containing waste in compliance with USDOT packaging and transportation requirements. The Contractor shall provide The Mn/DOT Project Engineer with all Asbestos Containing Material Transportation shipping papers/manifests. Shipping paper guidance can be found at http://www.dot.state.mn.us/environment/regulated-materials/regmat-trans-disposal.html.

(5) Dispose of all asbestos containing waste in a Minnesota Pollution Control Agency permitted mixed municipal solid waste or Industrial landfill (not demolition debris landfills) permitted to accept asbestos containing wastes. Provide The Mn/DOT Project Engineer all landfill disposal receipts.

(D) Comply with Mn/DOT's manual "Asbestos and Regulated Waste Manual For Structure Demolition Or Relocations for Construction Projects" available on the following website: http://www.dot.state.mn.us/environment/regulated-materials/index.html.

The successful Contractor shall comply with all Mn/DOT policy, laws, regulations and/or rules regarding the removal and recycling/disposal of any regulated wastes including, but not limited to: *see manual for procedures and approved contractors/end sites.*

1. Treated Wood
2. Lead Paint
3. Lead Plates
4. Polychloronatedbiphenols (PCB's)
5. Mercury

The transportation of all the above wastes shall be in compliance with USDOT packaging and transportation requirements. The Contractor shall provide The Mn/DOT Project Engineer with all shipping papers or manifests.

The Contractor shall provide the Mn/DOT Project Engineer with copies of disposal or recycling records.

FAILURE TO COMPLY WITH NOTIFICATION PROVISIONS WILL BE DEEMED A MATERIAL BREECH OF CONTRACT. IN THE EVENT THAT A REGULATORY AGENCY IMPOSES MONETARY SANCTIONS ON Mn/DOT THAT ARE BASED, IN WHOLE OR IN PART, UPON THE ACTS OR OMISSIONS OF THE CONTRACTOR, THE CONTRACTOR AGREES TO INDEMNIFY Mn/DOT AND TO HOLD Mn/DOT HARMLESS FOR SAME, EXCEPT TO THE EXTENT THAT ANY SANCTIONS WERE CAUSED BY Mn/DOT'S OWN NEGLIGENCE.

(1706) EMPLOYEE HEALTH AND WELFARE

The provisions of Mn/DOT 1706 are supplemented with the following:

All construction operations shall be conducted in compliance with applicable laws, regulations and industry standards as described in Mn/DOT 1706. The Contractor shall be considered to be fully responsible for the development, implementation and enforcement of all safety requirements on the Project, notwithstanding any actions Mn/DOT may take to help ensure compliance with those requirements.

The Contractor shall submit a written safety program to the Engineer at the pre-construction conference addressing safety issues for all Project activities. This program shall contain name(s) of person(s) responsible for all safety requirements and this Contractor's Designee(s) shall be available at all times that work is being performed. The Contractor's designee(s) shall be responsible for correcting violations on the Project as observed by the Engineer or his/her representative.

The Contractor shall not use any motor vehicle equipment on this Project having an obstructed view to the rear unless:

(A) The vehicle has a reverse signal alarm which is audible above the surrounding noise level; or
(B) The vehicle is backed up only when an observer signals that it is safe to do so.

A $500.00 monetary deduction (per incident) will be assessed by Blue Earth County for violations of safety standards and requirements that have the potential for loss of life and/or limb of Project personnel or the public. The areas of special concern include, but are not limited to excavation stability protection, fall protection, protection from overhead hazards, vehicle backup protection (see above), confined space safety, blasting operations, and personal safety devices.

None of the monetary deductions listed above shall be considered by the Contractor as allowance of noncompliance incidents of these safety requirements on this Project.

(1707) PUBLIC CONVENIENCE AND SAFETY - MODIFIED

Section 1707 is hereby supplemented to include the following:

The Contractor shall remove, store and replace all mailboxes, etc., that may interfere with the installation of utilities and grading. The Contractor shall contact and receive permission from the property owner before removing or relocating any mailboxes. Such work shall be considered incidental to the contract with no direct compensation made therefore. Damage to mailboxes, etc., during removal, storage shall be corrected and/or repaired by the Contractor.

Mailboxes shall not be disturbed until actual construction warrants removal. No such removal shall take place until the Engineer is on-site, has approved of and is witness to the work. Removed mailboxes shall be relocated to a temporary location subject to the approval of the Engineer, the homeowner and the U.S. Postal Service. Removed mailboxes shall be relocated promptly so as to prevent any interruption in postal service.

(1710) TRAFFIC CONTROL DEVICES

All traffic control devices and methods shall conform to the Minnesota Manual on Uniform Traffic Control Devices (MN MUTCD), Minnesota Standard Signs Manuals Parts I and II, the Traffic Engineering Manual, and the following:

On any roadway having a 45 mph or higher speed limit prior to construction, all Category I and II temporary traffic control devices used after July 1, 2006 shall meet NCHRP 350 crash testing criteria. This includes all new and used Category I and Category II devices. Category I devices include tube markers, plastic drums and cones, etc. Category II devices include portable sign supports, Type I ,II and III barricades, etc.

The Contractor shall provide the Project Engineer a Letter of Compliance stating that all of the Contractors Category I and II Devices are NCHRP 350 approved as of July 1, 2006. The Letter of Compliance must also include approved drawings of the different signs and devices and shall be provided to the Project Engineer at the Pre-construction meeting.

(1712) PROTECTION & RESTORATION OF PROPERTY & LANDSCAPE - MODIFIED

Protection and restoration of property and landscape shall be done in accordance with the requirements of 1712, except as modified below:

Any signs that interfere with construction and are adjusted or removed by authorization of the Engineer shall be reset in their original location, by the Contractor, prior to leaving the project each day. Said signs shall be set in a temporary location, in a manner approved by the Engineer, during construction hours. Permanent replacement of traffic control devices, upon completion of all work, shall be by the County.

(1717) AIR, LAND AND WATER POLLUTION

The provisions of Mn/DOT 1717 are supplemented and/or modified with the following:

DISCOVERY OF CONTAMINATED MATERIALS AND REGULATED WASTES

If during the course of the Project, the Contractor unexpectedly encounters any of the following conditions indicating the possible presence of contaminated soil, contaminated water, or regulated waste, the Contractor shall immediately stop work in the vicinity, notify the Engineer, and request suspension of work in the vicinity of the discovery area, in accordance with Mn/DOT 1803.4.

A documented inspection and evaluation will be conducted prior to the resumption of work. The Contractor shall not resume work in the suspected area without authorization by the Engineer.

(A) Indicators of contaminated soil, ground water or surface water include, but are not limited to the following:

(1) Odor including gasoline, diesel, creosote (odor of railroad ties), mothballs, or other chemical odor.
(2) Soil stained green or black (but not because of organic content), or with a dark, oily appearance, or any unusual soil color or texture.
(3) A rainbow color (sheen) on surface water or soil.

(B) Indicators of regulated wastes include, but are not limited to the following:

(1) Cans, bottles, glass, scrap metal, wood (indicators of solid waste and a possible dump)
(2) Concrete and asphalt rubble (indicators of demolition waste).
(3) Roofing materials, shingles, siding, vermiculite, floor tiles, transite or any fibrous material (indicators of demolition waste that could contain asbestos, lead or other chemicals).
(4) Culverts or other pipes with tar-like coating, insulation or transite (indicators of asbestos).
(5) Ash (ash from burning of regulated materials may contain lead, asbestos or other chemicals).
(6) Sandblast residue (could contain lead).
(7) Treated wood including, but not limited to products referred to as green treat, brown treat and creosote (treated wood disposal is regulated).
(8) Chemical containers such as storage tanks, drums, filters and other containers (possible sources of chemical contaminants).
(9) Old basements with intact floor tiles or insulation (could contain asbestos), sumps (could contain chemical waste), waste traps (could contain oily wastes) and cesspools (could

contain chemical or oily wastes).

Mn/DOT 1717.2 A2 is hereby deleted and replaced with the following:

A2 During Construction

The Contractor shall implement the Project's Storm Water Pollution Prevention Plan. The Contractor shall schedule and install temporary and permanent sediment and erosion control measures, construct ponds and drainage facilities, finish earth work operations, place topsoil, establish turf, and conduct other Contract work in a timely manner to minimize erosion and sedimentation.

All exposed soil areas with continuous positive slopes that are within 60 m (**200 feet**) of a public water shall have temporary or permanent erosion protection within 24 hours after the construction activity in that portion of the site has temporarily or permanently ceased and connection is established to the public water. All other positive slopes to constructed surface waters, such as permanent storm water treatment ponds, curb and gutter systems, storm sewer inlets, temporary or permanent drainage ditches, or other storm water conveyance systems, shall have temporary erosion protection or permanent cover for the exposed soil areas as soon as practicable but no later than 14 days after construction activity has temporarily or permanently ceased in that area. For those drainage areas that have a discharge point within 1 mile and flows to an impaired or Special Waters shall have temporary erosion protection or permanent cover for the exposed soil areas as soon as practicable but no later than 7 days after construction activity has temporarily or permanently ceased in that area. Impaired and Special Waters are defined as those listed and referenced in the NPDES Permit.

Positive slopes adjacent to public waters and wetlands will be stabilized at the close of each day when weather forecasts for rain that evening, and/or overnight including weekends. Once work is completed it will be stabilized permanently as soon as practical but no later than seven days.

Exposed soil areas do not include; stockpiles or surcharge areas of sand, gravel, aggregate, concrete, bituminous, or road bed and surfacing material. A perimeter sediment barrier may be necessary to minimize loss when these are within the 60 m (**200 feet**) of existing surface waters or the property edge.

The bottom of temporary or permanent drainage ditches or swales constructed to drain water from a construction site must be stabilized with erosion control measures for the last 60 m (**200 feet),** or more when conditions warrant, from the property edge or from the point of discharge to any existing surface water. Stabilization shall be completed within 24 hours after the construction activity in that portion of the ditch has temporarily or permanently ceased. Ditch stabilization will continue concurrently with construction activities but no later than 14 days after construction activities have permanently or temporarily ceased. Any, culvert pipe or storm sewer pipe that is within the cumulative distance is not part of this distance. Ditch checks may be provided where necessary to slow water flow and capture sediment.

Temporary or permanent ditches used as treatment systems will not need to be stabilized but must provide the proper Best Management Practices for the treatment system.

Pipe outlets shall be provided with temporary or permanent energy dissipation within 24 hours of connecting the pipe to any constructed or existing surface waters.

The Contractor shall limit the surface area of erodible soil that can be exposed to possible erosion at any one time when the permanent erosion control features are not completed and operative.

All liquid and solid wastes generated by concrete washout operations must be contained and not have the opportunity to come in contact with the surface waters or ground water. This includes the ditches, slopes to ditches, curb and gutter/stormsewer systems, and ponds. Areas where there are sandy soils,

karsts, and high ground water the washout facility must have an impermeable liner. Liquid and solid wastes must be disposed of properly. A concrete washout sign must be installed adjacent to each washout facility to notify personnel.

Mn/DOT 1717.2E is hereby deleted and replaced with the following:

E Site Plans

The Engineer may require the Contractor to submit a site plan, in writing, detailing proposed erosion control and sediment control measures and a schedule indicating starting and completion times for construction operations working in water bodies and/or in direct proximity to waters of the state.

Contractor shall not start work in the affected areas until the schedule and site plan have been accepted by the Engineer and all materials and equipment for the activity are on site.

(1717) NATIONAL POLLUTANT DISCHARGE ELIMINAITION SYSTEM (NPDES) PERMIT

Pollution of natural resources of air, land and water by operations under this Contract shall be prevented, controlled, and abated in accordance with the rules, regulations, and standards adopted and established by the Minnesota Pollution Control Agency (M.P.C.A.), and in accordance with the provisions of Mn/DOT 1717, these Special Provisions, and the following:

By signing the Proposal and completing the NPDES permit application, the Contractor is a co-permitee with the County/City to ensure compliance with the terms and conditions of the General Storm Water Permit (MN R100001) and is responsible for those portions of the permit where the operator is referenced. This Permit establishes conditions for discharging storm water to waters of the State from construction activities that disturb 0.4 hectares [1 acre] or more of total land area. A copy of the "General Permit Authorization to Discharge Storm Water Associated with a Construction Activity Under the National Pollutant Discharge Elimination System (NPDES)/State Disposal System Permit Program" is available at: http://www.pca.state.mn.us/water/stormwater.stormwater-c.html or by calling 651-296-3890.

The Contractor shall apply and pay for the NPDES Permit on this Project. Payment for the application shall be incidental to the Contract and no direct compensation will be made. Blue Earth County will provide the Contractor with the application form with Sections 1 thru 3 and 5 thru 14 completed, as part of the Contract document package. The Contractor shall fill out the Contractor's portion (Section 4 and section15), complete the application process, and post the Permit and MPCA's letter of coverage onsite.

A NPDES Permit declaration form will be sent to the Contractor with the Contract award packet. A copy of the signed permit application and a signed Permit Declaration form must be returned with the Contract and bond. Submittal of the copy of the signed permit application and Permit Declaration is mandatory for Contract approval. No work which disturbs soil and/or work in waters of the state will be allowed on this Project until the NPDES Permit is in effect and the department has received the required documentation.

The Contractor shall be solely responsible for complying with the requirements listed in Part II.B and Part IV of the General Permit.

The Contractor shall be responsible for providing all inspections, documentation, record keeping, maintenance, remedial actions, and repairs required by the permit. All inspections, maintenance, and records required in the General Permit Paragraph IV.E, shall be the sole responsibility of the Contractor. The word "Permitee" in these referenced paragraphs shall mean "Contractor". Standard forms for logging all required inspection and maintenance activities shall be used by the Contractor. All inspection and maintenance forms used on this Project shall be turned over to the Engineer every two weeks for retention in accordance with the permit.

The Contractor shall have all logs, documentation, inspection report son site for the Engineer's review and

shall post the permit and MPCA's letter of coverage on site. The meetings with the MPCA, Watershed District, WMO, or any local authority shall be attended by both the Engineer and the contractor or their representatives. No work required by said entities, and for which the Contractor would request additional compensation from Blue Earth County, shall be started without approval from the Engineer. No work required by said entities and for which the changes will impact the design or requirements of the Contract documents or impact traffic shall be started without approval from the Engineer.

The Contractor shall immediately notify the Engineer of any site visits by Local Permitting Authorities performed in accordance with Part V.H.

Emergency Best Management Practices must be enacted to help minimize turbidity of surface waters and relieve runoff from extreme weather events. It is required to notify the MPCA Regional contact person within 2 days of an uncontrolled storm water release.

The names and phone numbers of the MPCA Regional Contact personnel can be found at: http://www.pca.state.mn.us/water/stormwater/stormwater-c.html. the Contractor is reminded that during emergency situations involving uncontrolled storm water releases that the State Duty Office must be contacted immediately at 1-800-422-0798 oe 1-651-649-5451.

The Contractor shall review and abide by the instructions contained in the permit package. The contractor shall hold Blue Earth County harmless for any fines or sanctions caused by the contractor's actions or inactions regarding compliance with the permit or erosion control provisions of the Contract Documents.

The Contractor is advised that Section 1 of the NPDES application form makes reference to a Storm Water Pollution Prevention Plan (SWPPP). This Project's SWPPP is addressed throughout Mn/DOT's Standard Specifications for Construction, as well as this Project's Plan and these Special Provisions. The following table identifies NPDES permit requirements and cross-references where this Contract addresses each requirement.

Last revision 2/1/07
NPDES Permit Requirements Cross-Reference within this Contract

NPDES Permit Requirements	Cross-Reference within this Contract
Obtain NPDES Permit; Permit Compliance; Submit Notice of Termination	Mn/DOT 1701, 1702 and 1717 Special Provisions: 1717 (Air, Land &Water Pollution), 1717 (National Pollutant Discharge Elimination System (NPDES) Permit)
Certified Personnel in Erosion / Sediment Control Site management Develop a Chain of Command	Mn/DOT 1506, 1717, and 2573; Special Provisions: 1717 (Air, Land &Water Pollution), 1717 (National Pollutant Discharge Elimination System (NPDES) Permit)
Project / Weekly Schedule (for Erosion/ Sediment Control) Completing Inspection / Maintenance Log/ Records	Mn/DOT 1717 and 2573; Special Provisions: 1717 (Air, Land &Water Pollution), 1717 (National Pollutant Discharge Elimination System (NPDES) Permit); and

Project Specific Construction Staging	The Plans: Mn/DOT 1717; Special Provisions: 1717 (Air, Land &Water Pollution), and 1717 (National Pollutant Discharge Elimination System (NPDES) Permit) 1806 (Determination and Extension of Contract Time)
Temporary Erosion / Sediment Control	The Plans: Mn/DOT 2573 and 2575
Maintenance of Devices / Sediment removal Removal or Tracked Sediment Removal of Devices	The Plans: Mn/DOT 1717 and 2573; Special Provisions: 1514 (Maintenance During Construction) 1717 (Air, Land &Water Pollution), and 1717 (National Pollutant Discharge Elimination System (NPDES) Permit)
Dewatering	Mn/DOT 2105.3B and 2451.3 C; Ay also require DNR Permit
Temporary work not shown in the Plans Grading areas (unfinished acres exposed to erosion)	Mn/DOT 1717, 2573, and 2451C; Special Provisions 1717 (Air, Land &Water Pollution), and 1717 (National Pollutant Discharge Elimination System (NPDES) Permit)
Permanent Erosion /Sediment Control and Turf Establishment	The Plans: Mn/DOT 1717, 2573 and 2575; Special Provisions: 1717 (Air, Land &Water Pollution), and 1717 (National Pollutant Discharge Elimination System (NPDES) Permit)

(1803) PROSECUTION OF WORK - MODIFIED

The provisions of 1803 are modified to the extent that the "Progress Schedule" (bar chart or critical path diagram) referenced in 1803.1 and elsewhere will not be required on this Project. This shall, however, in no way lessen the Contractor's responsibility for (1) providing the Engineer with the notifications required by the provisions of 1803.2; and (2) prosecuting the work diligently, as required therein, so as to assure satisfactory progress towards a timely completion of the Project. No work shall be performed during the hours of darkness as determined by the Engineer.

(1806) DETERMINATION AND EXTENSION OF CONTRACT TIME

The Contract Time will be determined in accordance with the provisions of Mn/DOT I806 and the following:

Construction operations shall be started on or before May 30, 2011 or within eight (8) Calendar Days after the date of Notice of Contract Approval, whichever is later. Construction operations shall not commence prior to Contract Approval.

All work required under this Contract, except maintenance work and Final Clean Up shall be completed within 60 Working Days.

When, in the opinion of the Engineer, work on the Project cannot be performed due to failure of material delivery beyond the control of the Contractor, the Engineer will agree to a Suspension of Work in conformance with Mn/DOT 1803.4 and/or will cease the charging of working days, whichever the Engineer deems applicable.

A Resumption of Work Order will be issued by the Engineer after the Contractor has received delivery of the required material, and/or the Engineer will resume the charging of working days.

(1807) FAILURE TO COMPLETE THE WORK ON TIME

Liquidated damages will be assessed in accordance with the provisions of Mn/DOT 1807.

(1901) MEASUREMENTS OF QUANTITIES - MODIFIED

Measurement of quantities shall be in accordance with the provisions of 1901, and the following:

During each days production, loads will be selected at random by the Engineer for spot checks of total tons being hauled from the producing plant. These spot checks will be taken two or more times each day, to ensure that the actual load is equal to or exceeds the established uniform load weight. The results of these tests shall be recorded and the spot-check tickets given to the County as documentation of uniform loads. The loads selected for scale check shall be weighed by the Contractor on a platform scale which is large enough to weigh the entire hauling vehicle in one operation and which is accurate to within one percent (1%) of the net load weighed. If a commercial platform scale is used for the scale check, it shall have currently been tested and approved by the Division of Weight and Measures of the Minnesota Department of Public Service. Other scales may be tested by the Contractor in the presence of the Engineer or by the Divisions of Weight and Measures, Minnesota Department of Public Service. This will be considered incidental work and no direct compensation will be made therefore.

If a belt scale is used, it shall have automatic shutoff controls that can be calibrated for more than one net weight. Manual control of shutoff controls will not be permitted. All costs that the Contractor may incur as a result of this work will be considered to be incidental to the type of aggregate being weighed and no direct compensation will be made therefore.

(1904) EXTRA AND FORCE ACCOUNT WORK

The provisions of Mn/DOT 1904 are supplemented and/or modified with the following:

The Contractor is required to submit force account work itemized statements of costs in accordance with Mn/DOT 1904 to the Engineer on Mn/DOT form TP-21659 (Summary of Daily Force Account). Copies of this form can be obtained from the Engineer.

The following sentence shall be added to the second paragraph of Mn/DOT 1904:

"Under no circumstance will the negotiated unit price for Extra Work which is performed by a subcontractor include a Prime Contractor allowance which exceeds that provided for in 1904(4), Paragraph 3."

(1906) PARTIAL PAYMENTS - MODIFIED

Partial payments shall be made in accordance with the requirements of 1906, except as modified below:

The first line of the third paragraph is modified to read: From the amounts ascertained as payable on each partial estimate, five (5) percent will be retained until final payment is made, unless reduced by authorization of the Engineer, on the last partial payment.

(1910) FUEL COST ADJUSTMENT - MODIFIED

The provisions of 1910 are hereby deleted. There will be no fuel cost adjustment for fuel escalation.

(2021) MOBILIZATION

The provisions of Mn/DOT 2021 are hereby deleted and replaced with the following:

2021.1 DESCRIPTION

Mobilization shall consist of preparatory work and operations, including, but not limited to, those necessary for the movement of personnel, equipment, supplies and incidentals to the Project site; for the establishment of all Contractor's offices and buildings or other facilities necessary for work on the Project. Mobilization may include bonding, permit, and demobilization costs. When the proposal does not have a lump sum item for Mobilization, all costs incurred by the Contractor for Mobilization shall be incidental to other work.

2021.2 BLANK

2021.3 BLANK

2021.4 BLANK

2021.5 BASIS OF PAYMENT

Based on the lump sum Contract price for mobilization, partial payments will be made as follows:

Mobilization Partial Payments		
	Pay Lesser of the Two	
% of Original Contract Amount Completed[1]	% of Mobilization	% of Original Contract Amount
5	50	3
15	75	5
25	100	5
95	100	N/A

[1] The Percent of Original Contract Amount Completed = the amount earned by the Contractor, excluding money earned for mobilization and material on hand, divided by the total value of the original contract (all bid items).

The total sum of all payments shall not exceed the original Contract amount bid for the mobilization item, regardless of the fact that the Contractor may have, for any reason, shut down work on the Project or moved equipment away from the Project and then back again.

Nothing herein shall be construed to limit or preclude partial payments otherwise provided by the Contract.

Item No.	Item	Unit
2021.501	Mobilization	Lump Sum

(2051) MAINTENANCE & RESTORATION OF HAUL ROADS - MODIFIED

Maintenance and restoration of haul roads shall be done in accordance with the provisions of 2051 except as modified below:

Prior to hauling of any materials on this project, Contractor shall submit a list of proposed haul roads to the Engineer for his approval. The Contractor shall also submit a list of all township roads that are proposed to be used as haul roads to the township official for their approval.

Contractor will be required to maintain and restore haul roads as per Specification No. 2051.4 Any costs that the Contractor may incur during this operation will be considered incidental and no direct compensation will be made therefore.

(2101) CLEARING AND GRUBBING

Clearing and grubbing operations shall be performed in accordance with the provisions of Mn/DOT 2101 and the following:

The first paragraph of Mn/DOT 2101.3D Disposal Limitations, is revised to read as follows:

The Contractor shall dispose of trees, brush, stumps, roots, and other debris or byproducts by chipping, marketing, or burning. The Contractor:

Mn/DOT 2101.3D(4) under Disposal Limitations, is revised to read as follows:

(4) Shall conduct burning only after the disposal options are deemed impractical, and in accordance with 2104.3, Minnesota Rules Chapter 7009 and any applicable local ordinances. At no time shall waste tires, rubble, or plastics or similar materials be used to ignite the wood resources.

Mn/DOT 2101.3D(5) under Disposal Limitations, is revised to read as follows:

(5) Shall not bury trees, brush, stumps, roots, and other debris or by-products within the State Right of Way.

Mn/DOT 2101.3D1(a) under Marketable Trees, is revised to read as follows:

(a) Shall not burn or waste marketable trees without having written proof from three potential wood-using industries or individuals that the wood is not wanted. This requirement only applies when the volume of marketable trees on the Project exceeds 75 m^3 (**100 cubic yards or 20 cords or 10,000 board feet**).

Mn/DOT 2101.3D2c(3) under Disposal Deadlines and Locations, is revised to read as follows:

(3) Within the Right of Way by burning or chipping, when allowed.

The first paragraph of Mn/DOT 2101.3D3 Pine, is revised to read as follows:

The Contractor shall dispose of all non-marketable pine trees, brush, stumps, roots, and debris by chipping, debarking, burning, or covering with an air tight tarp within 20 calendar days of being cleared during the growing season.

Mn/DOT 2101.3D6 Burying, is hereby deleted in its entirety.

The first paragraph of Mn/DOT 2101.4B Area Basis, is revised to read as follows:

When the hectare is the unit, quantities will be determined by measuring (to the nearest 0.02 hectare (**0.05 acre**)) all areas cleared and all areas grubbed, within the limits shown in the Plans or staked by the Engineer. All measurements will be made horizontally to points 3 m (**10 feet**) outside the trunks of qualifying trees or stumps on the perimeter of the area being measured. Separate areas smaller than

0.02 hectare (**0.05 acre**) will be considered to be 0.02 hectare (**0.05 acre**).

The first paragraph of Mn/DOT 2101.5 Basis of Payment, is revised to read as follows:

Payment for the accepted quantities of clearing and grubbing at the Contract prices per unit of measure will be full compensation for all removal and disposal costs, including the costs of securing outside disposal sites as needed and of carrying out the specified treatment in disposing of elm, oak wilt infected red oaks, pine, and marketable trees.

The Contractor shall remove only those trees necessary to be removed to construct this Project. All other trees shall be protected from damage during construction.

(2104) REMOVING PAVEMENT AND MISCELLANEOUS STRUCTURES

Removal of miscellaneous structures on this project shall be in accordance with the provisions of 2104, except as modified below:

Abandoned structures and other obstructions shall be removed from the Right of Way and disposed of in accordance with the provisions of Mn/DOT 2104, except as modified below:

Measurement and payment for the removal and disposal of materials will be made only for those Items of removal work specifically included for payment as such in the Proposal and as listed in the Plans. The removal of any unforeseen obstruction requiring in the opinion of the Engineer equipment or handling substantially different from that employed in excavation operations, will be paid for as Extra Work as provided in Mn/DOT 1403.

All removals shall be disposed of by the Contractor outside the Right of Way in accordance with Mn/DOT 2104.3C3 to the satisfaction of the Engineer.

(2104) REMOVE AND HAUL TREATED WOOD

If the Contractor is required to dispose of treated wood, the provisions of Mn/DOT 2104 are supplemented with the following:

The Contractor can elect to reuse the treated wood for its original intended purpose. The Contractor shall furnish a completed Transfer of Ownership form to the Engineer prior to removing any treated wood from the Project limits. The Transfer of Ownership form is available at the following website: http://www.dot.state.mn.us/environment/regulated-materials/pdf/treated-wood-transfer.pdf .

If the Contractor cannot or elects not to re-use the treated wood for its original intended purpose, but must be disposed, the following shall apply:

(A) The Contractor shall dispose of all waste treated wood in a MPCA permitted Minnesota solid waste or industrial landfill. The Contractor shall not dispose of waste treated wood in a demolition landfill. Within 30 days after the treated wood is transported to the landfill, the Contractor shall provide the Engineer with shipping manifests, scale tickets and invoices. Shipping manifests shall include, but are not limited to, the following information: specify treated wood as the type of waste, quantity of wood, date of hauling and disposal, and location of disposal.

(B) The Contractor has the option to chip creosote treated wood on site instead of hauling it to a landfill. After the wood is chipped on site, the Contractor shall transport the chipped wood off site to a MPCA permitted incinerator that is permitted to burn creosote treated wood. Call

651.366.3630 for list of incinerators permitted to burn creosoted treated wood. This applies to creosote treated wood only.

Measurement and payment for the removal and disposal of treated wood will be made only when specifically included for payment as such in the Proposal and as listed in the Plans. All other removal and disposal of treated wood operations shall be incidental work and no direct compensation will be made therefore.

(2105) EXCAVATION AND EMBANKMENT - MODIFIED

At the preconstruction meeting, the Contractor shall present to the Engineer his proposed plan for construction, including as a minimum, his hauling operation and the amount, size, and type of equipment he will use for the project.

Material which is excavated and determined by the Engineer or the Engineer's representative to be suitable material shall be used for embankment construction or backfill. The suitable materials hall not be mixed with or contaminated with unsuitable soil in any amounts. Selection of suitable materials shall be considered to be incidental to the contract, with no direct compensation therefore. Any stockpiling or re-handling of these materials shall be considered incidental to the contract with no direct compensation therefore.

No topsoil shall be placed on the in-slopes until the slopes are approved by the Engineer.

The rate of depositing material on the embankment shall not exceed the capacity of the leveling and compaction equipment as determined necessary by the Engineer. Compaction of this material should not be delayed after being placed.

The Contractor will strip all topsoil in the Borrow and Access Road areas with a Dozer. The Contractor will construct a haul road with positive drainage from suitable clay materials as determined by the Engineer. After Borrow completion the haul road materials will be placed in the road grading, the haul road materials will not be placed back into the Borrow site.

Roadway excavation and embankment construction shall be performed in accordance with the provisions of Mn/DOT 2105, except as modified below:

Mn/DOT 2105.2A2 Rock Excavation is revised to read as follows:

Rock excavation shall consist of all materials that cannot, in the Engineer's opinion, be excavated without drilling and blasting or without the use of rippers, together with all boulders and other detached rock each having a volume of 1 cubic meter (**1 cubic yard**) or more, but exclusive of those quantities that are to be paid for separately under the item of rock channel excavation.

The last paragraph in Mn/DOT 2105.3B Preparation of Embankment Foundation, is revised to read as follows:

Before backfilling depressions within the roadway caused by the removal of foundations, basements, and other structures, the Contractor shall enlarge the depressions as directed by the Engineer.

The first and second sentences in the second paragraph in Mn/DOT 2105.3D Disposition of Excavated Material, are revised to read as follows:

When the soils are so varied that selection and placement of uniform soils is not practical, the Contractor shall use disks, plows, graders or other equipment to blend and mix suitable soils to produce a uniform soil texture, moisture content and density; except that, all soils that contain 20 percent or more particles passing the 75 *u*m (**#200**) sieve shall be blended, mixed and dried with a disk, within the entire

upper 2 meters **(6 feet)** of embankment. The disk shall meet the requirements of 2123 N, Disk Harrow. A disk is also to be used below the upper 2 meters **(6 feet)** of the embankment fill area, if in the opinion of the Engineer, the Contractor is not producing a uniform soil texture.

The fifth paragraph in Mn/DOT 2105.3D Disposition of Excavated Material, is revised to read as follows:

Peat, muskeg, and other unstable materials that are not to be used in the roadbed embankments shall be deposited in the areas indicated in the Plans or elsewhere as approved by the Engineer. All other material that is considered unsuitable for use in the upper portion of the roadbed shall be placed outside of a 1:1 slope down and outward from the shoulder lines on fills under 10 m (**30 feet**) in height or outside of a 1 vertical to 1.5 horizontal slope down and outward from shoulder lines on fills over 10 m (**30 feet**) in height, or used to flatten the embankment slopes, or disposed of elsewhere as approved by the Engineer.

The second sentence in the eighth paragraph of Mn/DOT 2105.3D Disposition of Excavated Material, is revised to read as follows:

No stones exceeding 150 mm (**6 inches**) in greatest dimension will be permitted in the upper 1 m (**3 feet**) of the roadbed embankment.

The fourth to last paragraph in Mn/DOT 2105.3D Disposition of Excavated Material, which begins with "All combustible debris materials (stumps, roots, logs, brush, etc.) together with all..." is hereby deleted and replaced with the following:

All noncombustible materials other than soils (oversized rock, broken concrete, metals, plastic pipe, etc.) shall be disposed of in accordance with 2104.3C.

The ninth paragraph of Mn/DOT 2105.5 is hereby deleted and replaced with the following:

If the Proposal fails to include a bid item for rock excavation or rock channel excavation, and material is uncovered that is so classified, excavation of the rock will be paid for separately at the Contract price for common excavation or common channel excavation, plus an additional $26.00 per cubic meter (**$20.00 per cubic yard**) . If no bid item is provided for common channel excavation, excavation of materials classified as rock channel excavation will be paid for at the Contract price for common excavation plus an additional $28.00 per cubic meter (**$21.50 per cubic yard**). Such stipulated prices for rock excavation will apply up to a maximum of 200 m3 (**260 cubic yards**) of excavation per item or to such quantity as may be performed by mutual consent prior to execution of an Extra Work agreement.

The eleventh paragraph of Mn/DOT 2105.5 is hereby deleted and replaced with the following:

(a) That portion of the additional excavation that is removed from below a plane parallel to and 5 m (**15 feet**) below the natural ground surface will be measured in 2 m (**5 foot**) depth zone increments and paid for separately at adjusted unit prices. The adjusted unit price will be equal to the Contract bid price for muck excavation plus $0.39 per cubic meter (**$0.30 per cubic yard**) for the additional excavation within the 5-7 m (**15-20 foot**) depth zone and an additional $0.26 per cubic meter (**$0.20 per cubic yard**) for each additional 2 m (**5 foot**) increment of depth beyond 7 m (**20 feet**).

Compaction of all embankment construction, including culvert backfills, shall be obtained by the "Quality Compaction" method described in Mn/DOT 2105.3F.

No disposal shall occur in those areas defined below as "environmentally sensitive" unless the Contractor can document that: 1) non-sensitive areas are not available; or that 2) the material can be used to benefit an "environmentally sensitive" area. All necessary permits for the disposal operations shall be obtained by

the Contractor and approval from the appropriate State and Federal Agencies shall be included in the Contractor's Disposal Plan.

(A) No disposal shall occur in the following "environmentally sensitive" area:
(1) Wetlands, as described in "Wetlands of the United States", Circular 39, published by the U.S. Department of Interior, Fish and Wildlife Service;
(2) 100-year frequency flood plains;
(3) Archaeological or historic sites – See Section S-1701 (LAWS TO BE OBSERVED (CULTURAL RESOURCES)) of these Special Provisions for specific requirements;
(4) Areas with stability or settlement problems;
(5) Areas with artesian conditions;
(6) Unique animal or plant communities;
(7) Landscapes or geologic formations with exemplary, unique, rare or threatened/endangered characteristics.

(B) Any environmentally sensitive areas shown in the Plan are approximate only. If it is anticipated that said areas may be affected by disposal site usage and/or any of the Contractor's operations, the Engineer will determine exact limits on an "as needed basis".

(C) Prior to the disposal of any excess grading materials, concrete rubble, bituminous materials, or any other materials requiring disposal, the Contractor shall have on file a written Disposal Plan with written approval by the Engineer. The written Disposal Plan must reflect not only the above requirements, but also the following points:
(1) That legal permission from the property owner has been obtained;
(2) That all required local and county disposal permits have been obtained;
(3) That the MPCA has reviewed and granted permits as necessary for solid waste disposal;
(4) That the disposal area and Plan meet with requirements of the U.S. Fish and Wildlife Service as noted in Executive Order 11990 and Circular 39, as verified by field review. In this regard, the Contractor shall give notice sufficient to permit the Engineer and a representative from the Mn/DOT Office of Environmental Services to conduct a site review; and
(5) That the limits of the disposal area will be staked by the Contractor so as to accommodate the site review and aid the Contractor in limiting disposal operations so that encroachments do not inadvertently occur.

The Contractor is required to present his/her Disposal Plan in detail at the Pre-construction Conference.

In areas to be cultivated or used as agricultural fields the Contractor shall subsoil to a minimum depth of 18" prior to topsoil placement, place topsoil with a dozer only, and then subsoil the topsoil placed to a depth equal to that of the topsoil placed or as directed by the Engineer. De-compaction will be paid for under Item 2105.550 Subsoiling for both the clay and topsoil layer.

(2118) AGGREGATE SURFACING CL1 - MODIFIED

This work shall consist of constructing aggregate surface courses in accordance with the provisions of Mn/DOT 2118 except as modified below:

Recycled concrete may not be used for Class 1.

Compaction shall be achieved by the "Quality Compaction" Method described in Mn/DOT 2211.3C or as directed by the Engineer.

Aggregate surfacing shall conform to the requirements of 3138 except as modified to require that no less than 8 percent (8%) nor more than 15 percent (15%) shall pass the No. 200 sieve.

The Schedule of Materials Control section I. Grading and Base Construction Items; Item No. 7 'Moisture Content'; Minimum Required Agency Acceptance Testing (Field Testing Rate) shall be revised to: As determined necessary by the Engineer.

(2123) EQUIPMENT RENTAL

The provisions of 2123 are modified and/or supplemented with the following:

The following is added to Mn/DOT 2123.3 SPECIFIC REQUIREMENTS:

N Disk Harrow

The disk harrow shall be of sufficient size and mass to manipulate the soils to a depth of approximately 300 mm [**12 inches**] and shall meet the approval of the Engineer.

The following is added to Mn/DOT 2123.5 BASIS OF PAYMENT:

2123.610 Disk Harrow .....hour

(2130) APPLICATION OF WATER

The provisions of Mn/DOT 2130 are modified as follows:

The third paragraph of Mn/DOT 2130.5 is hereby deleted and the following substituted therefore:

Water applied by order or approval of the Engineer for dust control will be paid for at a unit price of $5.45 per cubic meter (**$20 per 1000 gallons**) in the absence of the Contract bid Item 2130.501.

(2211) AGGREGATE BASE - MODIFIED

Aggregate base courses shall be constructed in accordance with the provisions of Mn/DOT 2211 except as modified below:

The Class 5 base material shall be completed at least seven (7) days in advance of the start of the bituminous surfacing. Class 7 material will be allowed for aggregate base.

Each aggregate source (Add-Rock) will meet the Aggregate (Quality Tests), Specification 3138 requirements as its own product sample, not as a combined/composite sample with other aggregates.

Compaction shall be achieved by the "Quality Compaction Method" described in Mn/DOT

The Schedule of Materials Control section I. Grading and Base Construction Items; Item No. 7 'Moisture Content'; Minimum Required Agency Acceptance Testing (Field Testing Rate) shall be revised to: As determined necessary by the Engineer.

The last paragraph in Mn/DOT 2211. 3C2 Quality Compaction Method, is revised to read as follows:

The Engineer may elect to perform density tests as shown in the Mn/DOT Grading and Base Manual, as needed to assist inspection. The actual density obtained by testing the aggregate base must meet or exceed the requirements shown in 2211.3C1 Specified Density or 2211.3C3 Penetration Index Method in order to be acceptable.

The first sentence in Mn/DOT 2211.3F1 Gradation Control, is revised to read as follows:

The Contractor and/or aggregate producer shall be responsible for maintaining a gradation control program in accordance with the random sampling acceptance method described in the Mn/DOT Grading and Base Manual.

Mn/DOT 2211.3F2(d) under Acceptance Testing is hereby deleted and replaced with the following:

(d) Samples for gradation testing will be taken randomly by the Engineer prior to compaction, in accordance with the random sampling method described in the Grading and Base Manual. All gradation tests will be reported to the nearest whole number, except the 75µ [**#200**] sieve will be reported to the nearest one tenth of one percent (0.1%).

Mn/DOT 2211.3F2(j) under Acceptance Testing, is revised to read as follows:

(j) One gradation sample will be taken from each sublot and tested. Payment will be based on the average results from the four sublot samples for each specified sieve.

The third paragraph after Mn/DOT 2211.3F2(k) under Acceptance Testing, is revised to read as follows:

A 5% price reduction will be assessed to both individual or averaged test lots for each test result that fails to meet specified gradations for sieve sizes not listed in Tables 2211-B and 2211-C by more than 2%. These price reductions are cumulative and shall be analyzed both separately and averaged by lot when applicable.

Table 2211-B in Mn/DOT 2211.3F2 Acceptance Testing, is hereby deleted and replaced with the following:

Table 2211-B
AGGREGATE BASE PAYMENT SCHEDULE
(4 Sublots/4 Samples)

% Passing Outside Specified Limits*		
4.75 mm (**#4**), 2.00 mm (**#10**), and 425 µm (**# 40**) Sieves	75 µm (**#200**) Sieve	Acceptance Schedule (Price Reduction)
1	0.1	5%
----------	0.2	6%
----------	0.3	9%
----------	0.4	11%
----------	0.5	14%
2	0.6	15%
> 2	> 0.6	Corrective Action
*Based on average of 4 tests Price reductions for more than one failing sieve size shall be cumulative. The compensation due to the Contractor for the quantity of material represented by the failing test results shall be reduced by the sum of the respective percentages. The Contractor does not have the option of taking a price reduction in lieu of complying with the Specifications.		

The following is added to Table 2211-C in Mn/DOT 2211.3F2 Acceptance Testing:

Substantial compliance will be applied to no more than one test failure. Substantial compliance will be eliminated when two or more test failures occur and test failures meeting substantial compliance will be subject to the next higher price reduction. One sieve failure = one test failure. Test failures for each material type will be treated separately.

The following is added to Table 2211-D in Mn/DOT 2211.3F2 Acceptance Testing:

Substantial compliance will be applied to no more than one test failure. Substantial compliance will be eliminated when two or more test failures occur and test failures meeting substantial compliance will be subject to the next higher price reduction. Test failures for each material type will be treated separately.

(2357) BITUMINOUS TACK COAT

The provisions of Mn/DOT 2357 are hereby deleted and replaced with the following:

2357.1 DESCRIPTION

This work shall consist of the application of bituminous material (emulsion or liquid asphalt) on a bituminous or concrete pavement prior to paving a new lift of Hot Mixed Asphalt.

2357.2 MATERIALS

A Bituminous Material 3151

The bituminous material for tack coat will be limited to one of the following kinds of emulsified asphalt. However, the Engineer may authorize the use of medium cure cutback asphalt (MC-250) during the early and late construction season when it is anticipated the air temperature may drop below 32 degrees Fahrenheit.

Allowable grades are as follows:

Emulsified Asphalt
Anionic SS-1, SS-1h
Cationic CSS-1, CSS-1h

Cutback Asphalt
Medium Cure Liquid Asphalt MC-250

Only Certified Sources are allowed for use. Mn/DOT's Certified Source List is located at the following link: http://www.dot.state.mn.us/products/index.html.

2357.3 CONSTRUCTION REQUIREMENTS

A Restrictions

Tack coat operations shall be conducted in a manner that offers the least inconvenience to traffic, with movement in at least one direction permitted at all times without pickup or tracking of the bituminous material.

The tack coat shall not be applied when the road surface or weather conditions are unsuitable as determined by the Engineer. The daily application of tack coat shall be limited to approximately the area on which construction of the subsequent bituminous course can reasonably be expected to be completed that day.

B Equipment

The bituminous material shall be applied with a distributor meeting the requirements of 2321.3C1.

C Road Surface Preparations

At the time of applying bituminous tack coat material, the road surface shall be dry and clean and all necessary repairs or reconditioning work shall have been completed as provided for in the Contract and approved by the Engineer.

All objectionable foreign matter on the road surface shall be removed and disposed of by the Contractor as the Engineer approves.

Preparatory to placing an abutting bituminous course, the contact surfaces of all fixed structures and the edge of the in-place mixture in all courses at transverse joints and in the wearing course at longitudinal joints shall be given a uniform coating of liquid asphalt or emulsified asphalt, applied by methods that will ensure uniform coating.

D Application of Bituminous Tack Coat Material

Unless otherwise indicated in the Plans or provisions, the bituminous tack coat material shall be applied within the application rates shown below in Table 2357.3-D as based on pavement type or condition and type of bituminous material. The Engineer shall approve the time and rate of application. Only a Mn/DOT certified asphalt emulsion supplier is allowed to dilute the emulsion. When diluted, the supplier shall provide asphalt emulsion diluted 1 part emulsion to 1 part water. Dilution of asphalt emulsion in the field is not allowed. The Engineer may waive the tack coat requirement when multiple lifts are paved on the same day.

Table 2357.3-D
Tack Coat Application Rates

Pavement Type or Condition	Application Rate, liter/square meter **[gallons/sy]**		
	Undiluted Emulsion SS-1, SS-1H, CSS-1, CSS-1H	Diluted Emulsion (1 part Emulsion to 1 part water) [1] SS-1, SS-1H, CSS-1, CSS-1H	MC Cutback[2] MC-250
New HMA	0.14 – 0.23 **[0.03 – 0.05]**	0.28 – 0.46 **[0.06 – 0.10]**	0.14 – 0.23 **[0.03 – 0.05]**
Aged HMA[3] or Un-milled PCC	0.23 – 0.37 **[0.05 – 0.08]**	0.46 – 0.69 **[0.10 – 0.15]**	0.23 – 0.37 **[0.05 – 0.08]**
Milled HMA or Milled PCC	0.32 – 0.46 **[0.07 – 0.10]**	0.64 – 0.92**[0.14 – 0.20]**	0.32 – 0.46 **[0.07 – 0.10]**

1- As provided by the asphalt emulsion supplier
2- When approved by the Engineer
3- Older than 1 year

The temperature of the bituminous material at the time of application shall be approved by the Engineer, within the limits specified following:

SS-1, SS-1H, CSS-1, CSS-1H ..... 21 to 71°C (**70 to 160° F**)
MC-250 ..... 74 to 104°C (**165 to 220° F**)

Unless otherwise directed, sand shall be spread on the newly tacked surface at pedestrian crossings.

2357.4 METHOD OF MEASUREMENT

A Bituminous Material
Bituminous material used for tack coat will be measured by volume at 15°C (**60° F)**.

2357.5 BASIS OF PAYMENT
Payment for the accepted quantity of asphalt emulsion and cutback shall be at the Contract price per unit of measure for undiluted asphalt emulsion and neat cutback. Furnishing and applying sand on newly tacked surfaces at pedestrian crossings shall be at no expense to the Department with no direct compensation being made therefore. Should the Contract fail to include a Contract Item covering payment for the bituminous material used for tack coat, all costs of furnishing and applying bituminous tack coat material will be included in the compensation provided for the bituminous mixture, with no measurement made of the bituminous material used and with no direct compensation being made therefore.

Payment for the tack coat will be made on the basis of the following schedule:

Item No.	**Item**	**Unit**
2357.502	Bituminous Material for Tack Coat	Liter (**gallon**)

(2360) PLANT MIXED ASPHALT PAVEMENT - MODIFIED
Mn/DOT 2360 is hereby deleted from the Mn/DOT Standard Specifications and replaced with the attached **2360 (Plant Mixed Asphalt Pavement) Specification**.

Mix Designation Numbers for the bituminous mixtures on this Project are as follows:

Type SP 19.0 Wearing Course Mixture (2,B)

The sentence "In addition to the list the above pavement surface must meet requirements of 2399 (Pavement Surface Smoothness) requirements." is deleted from **2360.3.E Surface Requirements** of the attached **2360 (Plant Mixed Asphalt Pavement) Specification**. The requirements of 2360.3.E Surface Requirements **will** apply.

Any additional work associated with Bridge Wingwall Paving will be considered incidental to placement of the bituminous pavement.

Recycled Asphaltic Pavement Materials (RAP), Recycled Asphalt Shingles (RAS), Crushed Concrete and Salvaged Aggregate shall not be used in maintenance overlays or wearing courses.

Recycled Asphaltic Pavement Materials (RAP) will be permitted only in the non-wear courses at a maximum rate of 20 percent. Recycled Asphalt Shingles (RAS), Crushed Concrete and Salvaged Aggregate will not be permitted in the non-wear courses.

Construction Requirements
Construction requirements will be in accordance with 2360.3 and the following:

The centerline joint will be closed at the end of each paving day by paving adjacent lanes unless the County agrees it is not feasible.

The Contractor's paver shall be equipped with two Trans-Tech Joint Makers or an approved equivalent joint compacting devices. This unit shall be considered to be a part of the paver and no other direct compensation will be made therefore.

A skidloader will be required for all approach grading. A motor grader will not be allowed unless previously approved by the Engineer.

All necessary work needed in preparing driveways, field approaches, intersections, and any other area designated by the Engineer shall be done by the Contractor with no direct payment being made therefore.

Compaction Operations
Compaction shall be obtained by the Ordinary Compaction Method in accordance with specification 2360.3-D.2 and the following:

Contractor shall be required to use three individual rollers for compaction. Vibratory steel for breakdown, pneumatic shall be used for intermediate rolling, and a steel static roller for finish rolling. All rollers shall be self-propelled and shall meet the requirements of specification 2360 as pertains to rollers. All the rollers shall be equipped with spray attachments for moistening all rolling surfaces on both the front and back. Contractor may be required to add liquid detergent to water. The vibratory steel rollers shall have a minimum total weight of 8 tons.

No incentive / disincentive payment will be made for Density, Ride, AFT, or Centerline Joint Density.

(2442) REMOVAL OF EXISTING BRIDGES

This work shall consist of the removal and disposal of inplace bridges in accordance with Mn/DOT 2442 and the following:

All materials removed for Bridge No. L5679 shall become the property of the Contractor.

The Contractor's shall use Mn/DOT approved companies for testing, waste transport and disposal as provided and described in Mn/DOT's manual "Asbestos and Regulated Waste Manual For Structure Demolition Or Relocations for Construction Projects" available on the following website: http://www.dot.state.mn.us/environment/regulated-materials/index.html. Contact Mark Vogel, Office of Environmental Services, 651.366.3630 with any questions regarding the manual.

All material shall be removed, identified, and disposed of in accordance with Section S-1701 (LAWS TO BE OBSERVED (BRIDGE)) of these Special Provisions. The Contractor will not receive permission to begin the removals, with the exception of material needed for hazardous and regulated waste assessment or testing, until the Mn/DOT Project Engineer has copies of all required notices.

Blue Earth County has placed netting under the bridges in an effort to prevent migratory bird nesting, if bird nesting is present bidders are advised of the following:

MIGRATORY BIRD PROTECTION
Bidders are advised that bridge sites such as those in this Contract are usually attractive places for swallows and phoebes to build nests and raise their young.

Bidder's attention is directed to the fact that swallows are protected by the Federal Migratory Bird Treaty Act 50 CFR 21, and the knowing destruction of swallows or their active nests is a felony punishable by a fine and/or jail term. Existing Bridge No. L5679 is known to support nesting swallows. Cliff swallows and barn swallows often build their nests on bridges that are over or near water.

The first priority for this Project is for the Contractor to take measures to prevent birds from building new nests before May 15 and until such time as the bridge construction activities are completed, or no longer threaten the nests. Birds should also be prevented from using old nests from the previous season. Old nests can be removed. An active nest is a nest with eggs or chicks. An unfinished nest is not considered active unless eggs have been laid. Acceptable measures include hosing or knocking down

any unfinished or inactive nest as it is being built. To prevent nesting, cover the undersides and nesting surfaces of the bridge with tamps, fabric or netting to prevent nesting. No permit is required as long as this activity is done prior to May 15 or the active nesting period.

If it is impossible to remove nests prior to May 15, the Contractor must obtain the required depredation permits and deal with the swallows on the bridge in a manner that is acceptable to the U.S. Fish and Wildlife Service (USFWS) and the Minnesota Department of Natural Resources (DNR). Depredation permits from the USFWS are required for the destruction of migratory bird nest on bridges during the nesting season (May 15 to September 1). The DNR also has permit authority over protected wildlife. USDA Animal Damage Control is also involved. The contact persons for obtaining the depredation permits are as follows:

Marilyn Balancer
U.S. Fish & Wildlife
Migratory Bird Office
Federal Building, One Federal Drive
Fort Snelling, MN 55111-4056
Phone: (651) 725-3313
Fax: (651) 725-3509

Blair Joselyn
Research Unit Supervisor
Dept. of Natural Resources
Lafayette Road
St. Paul, MN 55101
Phone: (651) 296-3344

USDA - APHIS
ADC
3l6 North Roberts Street
St. Paul, MN 55105
Phone: (651) 290-3156

The Contractor should allow a minimum of 21 days for processing the permit request.

All permits issued by the USFWS contain the requirement that any young swallows and eggs removed from the bridges must be turned over to a licensed rehabilitator for care and subsequent release. The rehabilitator must be contacted prior to the removal of any active nests to make sure that their services will be available. Contact the Department of Natural Resources' Central Office for federal licensed rehabilitators.

Summary

(1) Bridge work may be performed outside of the nesting season, i.e., before May 15th or after September 1st. No permit is required for this activity unless active nests are involved.

(2) The portions of the bridge providing nesting sites (undersides, overhangs, and ledges) may be covered with tarps, fabric or netting to prevent the birds from nesting. Other acceptable options are to diaper the underside of the bridge or hang filter reinforced with wire mesh from the side of the bridge to a foot below the water line. No permit is required for this activity. These measures should be implemented before May 15.

(3) Old nests from the previous year and unfinished nests (Not Active = No eggs or chicks present) can also be removed by hosing or knocking the nests down. No permit is required for this activity as long as it is done before May 15.

(4) Bridge work may be begun on August 15th in the hope that all or most of the birds will have completed nesting for the season. The risk with this approach is that some late nesters may still be present. If birds are still present, they must be turned over to a licensed rehabilitator. This activity requires a permit whenever there are active nests.

All costs of getting the necessary permit, rehabilitators, screening, properly disposing of swallow nests and/or swallows and eggs from the bridge, and all other work associated with removal of swallow nests shall be considered incidental to bridge construction.

NOTE: The network of rehabilitators was originally established to take in limited numbers of orphaned or abandoned animals from a local area. The network, as it is set up at the present, is neither able nor willing to commit to handling large numbers of birds on a statewide basis. Before deciding to employ the services of a rehabilitator, the rehabilitator should be contacted to make sure that their services will be available and that they have federal permits.

(2501) PIPE CULVERTS

This work consists of furnishing and installing pipe culverts and fittings in accordance with the Plans, the applicable Mn/DOT Standard Specifications, Section 12 of the AASHTO LRFD Bridge Design Specifications, the attached detail "PLASTIC PIPE INSTALLATION REQUIREMENTS", and the following:

MEASUREMENT
Measurement will be made by the length of pipe culvert furnished and installed as specified.

PAYMENT
Payment for pipe culverts will be made in accordance with the schedule set forth below at the appropriate Contract unit bid price for each separate item of work, which shall, in each instance, be compensation in full for the costs of all materials, equipment, and labor required to complete the work as specified, to the satisfaction of the Engineer.

Item No.	Description	Unit
2501.603	___ mm [__"] Pipe Culvert	meter [**linear foot**]

(2511) RIPRAP - MODIFIED

Riprap shall be furnished in accordance with the provisions of 2511 and the following:

The Contractor shall place riprap at locations shown in the plan and to dimensions as directed by the Engineer. The use of salvaged concrete materials will not be permitted for use as riprap. Riprap will be paid for by in-place volume of the material based on the surface dimensions staked and the specified thickness. Payment will not be made by weight of material basis.

The unit price of riprap shall include the furnishing and placement of Granular Filter under the entire riprap areas. Granular Filter Material shall be considered incidental with no direct payment made therefore. Geotextile Fabric will not be allowed as a substitution for Granular Filter Material.

(2573) STORM WATER MANAGEMENT

The provisions of Mn/DOT 2573 are supplemented and/or modified with the following:

The second paragraph of Mn/DOT 2573.3A1 Erosion Control Supervisor, is revised to read as follows:

The Erosion Control Supervisor shall be a responsible employee of the prime Contractor and/or duly authorized by the prime Contractor to represent the prime Contractor on all matters pertaining to the NPDES construction stormwater permit compliance. The Erosion Control Supervisor shall have authority over all Contractor operations which influence NPDES permit compliance including grading, excavation, bridge construction, culvert installation, utility work, clearing/grubbing, and any other operation that increases the erosion potential on the Project. In addition, the Erosion Control Supervisor shall **implement the Contractor's quality control program and other provisions in accordance**

with 1717.2 and be available to be on the Project within 24 hours at all times from initial disturbance to final stabilization as well as perform the following duties:

Mn/DOT 2573.3 A2, Construction of Temporary Storm Water Basins, is revised to read as follows:

Temporary storm water basins shall be constructed concurrently with the start of soil disturbing activities whenever practicable. The basins must be made fully functional and have storm water runoff from the localized watershed directed to the basins. The exposed sideslopes of the basins must be mulched and/or seeded within the time periods as set forth in 1717, or as directed by the Engineer.

The second paragraph of Mn/DOT 2573.3 A5, Vehicle Tracking Onto Paved Surfaces, is revised to read as follows:

The Contractor is responsible for insuring paved streets are clean at the end of each working day or more often as necessary to provide safety to the traveling public. Tracked sediment on paved surfaces must be removed by the Contractor within 24 hours of discovery, in accordance with 1717.2. Payment for street sweeping to provide safe conditions for the traveling public, environmental reasons or regulatory requirements shall be as provided in accordance with 1514.

The first sentence of Mn/DOT 2573.3E2 is revised to read as follows:

The bioroll shall be installed and anchored with wood stakes. The stakes shall be at a minimum nominally 25 mm x 50 mm **(1 inch x 2 inch)** and a minimum of 400 mm **(16 inches)** long with a pointed end.

The first paragraph of Mn/DOT 2573.3J Filter Log Installation, is revised to read as follows:

J Filter Log Installation

Filter logs shall be placed in accordance with the Plan. Straw and wood fiber filter logs shall be staked in place with wood stakes. Wood stakes shall be at a minimum 25 x 51 mm (**1 x 2 inch**) nominal size by 400 mm (**16 inches**) long. The stakes shall be driven through the back half of the log at an angle of approximately 45 degrees with the top of the stake pointing upstream. When more than one log is needed for length, the ends shall be overlapped 150 mm **(6 inches)** with both ends staked. Staking shall be every 0.3 m **(1 foot)** along the log unless precluded by paved surface or rock.

Mn/DOT 2573.5 Basis of Payment, is revised to read as follows:

Payment for storm water management and sediment control items will be compensation in full for all labor, materials, equipment, and other incidentals necessary to complete the work as specified, including the costs of maintenance and removal as required by the Contract. The Contractor will receive compensation at the appropriate Contract prices, or in the absence of a Contract bid price, according to the following unit prices, or in the absence of a Contract price and unit price, as Extra Work. In the absence of a Contract item for Erosion Control Supervisor, this work shall be considered incidental.

Mn/DOT 2573.5 E, Unit Prices, is revised to read as follows:

The Department will pay the following unit prices for temporary sediment control items in the absence of a Contract bid price:

(1) Bale Barrier $13.45/m (**$4.10 per linear foot)**
(2) Silt Fence, Heavy Duty $10/m (**$3.00 per linear foot**)
(3) Flotation Silt Curtain, Type: Still Water, 1.2 m (**4 foot**) depth $54.10/m (**$16.50 per linear foot**)
(4) Sediment Trap Excavation $7.20/$m^3$ (**$5.50 per cubic yard**)

(5) Bituminous Lined Flume $6.00/m^2$ (**$5.00 per square yard**)
(6) Silt Fence, Type Machine Sliced $6.50/m (**$2.00 per linear foot**)
(7) Sediment Removal, Backhoe $175 per hour
(8) Filter Log, Type Straw Bioroll $1.00/m (**$3.00/foot**)
(9) Filter Log, Type Rock Log $16.50/m (**$5.00/foot**)
(10) Flocculant Sock $300 each

(2575) CONTROLLING EROSION AND ESTABLISHING VEGETATION

The provisions of Mn/DOT 2575 are hereby modified and/or supplemented with the following:

Mn/DOT 2575.3D paragraph 2 and table 2575-2 are hereby deleted and replaced with the following:

The Contractor shall sow the seed uniformly at the rate of application specified in Table 3876-5.

Mn/DOT 2575.4D is hereby deleted and replaced with the following:

D Seed

When a bulk rate seed mixture is specified as shown in table 3876-5, the measurement will be made on that bulk mass. When a PLS rate seed mixture is specified as shown in table 3876-5, the measurement will be made on the PLS mass.

Mn/DOT 2575.5C is hereby deleted and replaced with the following:

C Seed

When a seed mixture is specified at a bulk rate as shown in table 3876-5, the payment will be made on that bulk mass. When a seed mixture is specified at a PLS rate as shown in table 3876-5, the payment will be made on the PLS mass.

Payment for seed not meeting germination and purity or PLS requirements of 3876 shall be subject to 1503. When components are missing from the specified mixture the affected seeded areas shall be reseeded with the missing components by the Contractor at no additional cost to the Department.

(2575) RAPID STABILIZATION SPECIFICATIONS - MODIFIED

Bidders are advised the plan contains quantities for temporary erosion control items. The Contractor will be required to mobilize to the site for the use of these items for temporary erosion control. The temporary erosion control items will be paid individually by the item used at the contract unit price. For example the Engineer can direct the Contractor to perform the application of Mulch Type 1 or Hydraulic Soil Stabilizer Type 5 with or without disk anchoring, seed, seeding, and fertilizer.

This work shall consist of operations necessary to rapidly stabilize small critical areas, to prevent off site sedimentation and/or to comply with permit requirements. The work may be performed at any time during the Contract and will be conducted on small areas that may or may not be accessible with normal equipment. This work shall be done in accordance with the applicable Mn/DOT Standard Specifications, the details shown in the Plan, and the following:

BASIS OF PAYMENT

In the absence of a Contract bid price, the Department will pay the following unit prices for Rapidly Stabilizing Small Scattered Critical Areas directly abutting Waters of the State during rough grading and as required in the NPDES permit. These unit prices shall be construed to include mobilizations for this activity.

Rapid Stabilization	Pre-Approve Prices	

Method 1	$900/ha **($400/acre)**	Approved price reflects small quantities. Quantities installed per Project visit are assumed to require approximately 0.4 to 0.8 ha **[1 to 2 acres]** of coverage.
Method 2	$2220/ha **($898/acre)**	Approved price reflects small quantities. Quantities installed per Project visit are assumed to require approximately 0.4 to 0.8 ha **[1 to 2 acres]** of coverage.
Method 3	$149.50/$m^3$ **($566/M gallon)**	Approved price reflects small quantities. Quantities installed per Project visit are assumed to require approximately 11.4 to 34 m^3 **[3000 to 9000 gallons]** of product slurry.
Method 4	$3.00/$m^2$ **($2.50/SY)**	Approved price reflects small quantities. Quantities installed per Project visit are assumed to require approximately 150 to 650 m^2 **[200 to 800 SY]** of coverage.
Method 5	$48.60/metric ton **($45/ton)**	Approved price reflects small quantities. Quantities installed per Project visit are assumed to require approximately 9 to 18 metric tons **[10 to 20 tons]** of riprap.

(3103) PORTLAND-POZZOLAN CEMENT

Mn/DOT 3103 is hereby deleted and replaced with the following:

Portland-Pozzolan cement shall be from certified sources only. Portland-Pozzolan cement furnished under this Specification shall conform to AASHTO M 240, Type IS, Type I(SM), Type IP, Type I(PM), Type IP-A or any other portland-pozzolan cement as approved by the Concrete Engineer, except as modified by the following:

(1) The fly ash constituent of the interground cement shall not exceed 20 percent.
(2) The fly ash constituent of blended cement shall not exceed 15 percent.
(3) The ground granulated blast furnace slag constituent of the interground cement shall not exceed 35 percent.
(4) The ground granulated blast furnace slag constituent of blended cement shall not exceed 35 percent.

All delivery invoices shall include a standardized Cement Certification Statement which is as follows: (insert company name) certifies that the cement produced at (insert plant and location) conforms to AASHTO and Mn/DOT Specifications for Type (insert Type) cement. The change of source or color, or both, of cement on a Project will not be permitted without the written approval of the Concrete Engineer.

(3137) COARSE AGGREGATE FOR PORTLAND CEMENT CONCRETE

Mn/DOT 3137 shall be deleted and replaced with the following:

3137.1 SCOPE

Provide coarse aggregate for use in portland cement concrete.

3137.2 REQUIREMENTS

A General

Provide coarse aggregate consisting of clean, sound, durable particles, uniform in quality, and free from wood, bark, roots, and other deleterious material.

The Engineer, in conjunction with the Concrete Engineer, may consider the following as the basis for acceptance of coarse aggregate for portland cement concrete:

(1) Results of laboratory tests,
(2) Behavior under natural exposure conditions,
(3) Behavior of other portland cement concrete with aggregate from the same or similar geological formations or deposits, and
(4) Any other tests or criteria as deemed appropriate by the Engineer, in conjunction with the Concrete Engineer.

B Classification

Provide coarse aggregate meeting the requirements of one of the following classifications:

(1) Class A: Crushed quarry rock including quartzite, gneiss, and granite, or mine trap rock including basalt, diabase, gabbro, and other igneous rock types. Class A aggregate may contain no greater than 4.0 percent non-Class A aggregate. The Department will not allow the intentional blending or adding of non-Class A aggregate.
(2) Class B: All other crushed quarry or mine rock types including carbonates, rhyolite, and schist.
(3) Class C: Natural or partly crushed gravel obtained from a natural gravel deposit.
(4) Class D: Mixture of at least two classes of coarse aggregate. The Engineer, in conjunction with the Concrete Engineer, will determine the suitability of the Class D aggregate for the proposed use including proportioning.
(5) Class R: Aggregate obtained from recycling concrete. The Engineer, in conjunction with the Concrete Engineer, will determine the suitability of the Class R aggregate for the proposed use including proportioning.

C Washing

Wash Class B, Class C, Class D, and Class R coarse aggregate. Wash Class A aggregate as needed to comply with the requirements of Table 3137-1.

D Quality

Quality requirements are based on each individual aggregate fraction unless otherwise allowed by the Engineer, in conjunction with the Concrete Engineer with the exception of the following:

(1) When 100 percent of the fractions from a single source pass the 1 in [**25 mm**] sieve, quality requirements are based on the composite value of the combined aggregates.
(2) When less than 100 percent of the fractions from a single source pass the 1 inch [**25 mm**] sieve:
(a) Those fractions passing the 1 inch [**25 mm**] sieve are combined and based on the composite value;
(b) The fractions greater than or equal to 1 inch [**25 mm**] are based on each individual aggregate fraction.

D1 Coarse Aggregate for General Use

Provide coarse aggregate for general use concrete in accordance with Table 3137-1.

Table 3137-1 **Coarse Aggregate for General Use**	
Quality Test	**Maximum Percent by Weight**

(a)	Shale:	
	Fraction retained on the ½ in [**12.5 mm**] sieve	0.4
	Fraction retained on the No. 4 [**4.75 mm**] sieve, as a percentage of the total material	0.7
(b)	Soft iron oxide particles (paint rock and ochre)	0.3
(c)	Total spall materials*:	
	Fraction retained on the ½ in [**12.5 mm**] sieve	1.0
	Fraction retained on the No. 4 [**4.75 mm**] sieve, as a percentage of the total material	1.5
(d)	Soft particles‖	2.5
(e)	Clay balls and lumps	0.3
(f)	Sum of (c) total spall materials, (d) soft particles, and (e) clay balls and lumps†	3.5
(g)	Slate	3.0
(h)	Flat or elongated pieces‡	15.0
(i)	Quantity of material passing No. 200 [**75 µm**] sieve:	
	Class A and Class B aggregates#	1.5
	Class C and Class D aggregates§	1.0
(j)	Los Angeles Rattler, loss on total sample	40.0
(k)	Soundness of magnesium sulfate**	15.0

* Includes the percentages retained by shale and soft iron oxide particles, plus other iron oxide particles, unsound cherts, pyrite, and other materials with similar characteristics.
‖ Exclusive of shale, soft iron oxide particles, and total spall materials.
† Sum of the total spall materials, soft particles, and clay balls and lumps. For total spall materials, use the percent in the total sample retained on the No. 4 [**4.75 mm**] sieve.
‡ Thickness less than 25 percent of the maximum width. Length greater than 3 times the maximum width.
# Each individual fraction at the point of placement consists of dust from the fracture and free of clay or shale.
§ For each individual fraction at the point of placement.
** Loss at 5 cycles for any fraction of the coarse aggregate. Do not blend materials from multiple sources to obtain a fraction meeting the sulfate soundness requirement.

D2 Coarse Aggregate for Bridge Superstructure

Provide coarse aggregate in accordance with 3137.2D1 except as modified by Table 3137-2 for use in the following:

(1) Bridge superstructure (deck, railing, posts, curbs, sidewalks, and median strips);
(2) Approach panels; and
(3) Precast concrete panel facings for Mechanically Stabilized Earth walls.

Table 3137-2
Coarse Aggregate for Bridge Superstructure

Quality Test		**Maximum Percent by Weight**
(a)	Shale:	

	Fraction retained on the ½ in [**12.5 mm**] sieve	0.2
	Fraction retained on the No. 4 [**4.75 mm**] sieve as a percentage of the total material	0.3
(b)	Soft iron oxide particles (paint rock and ochre)	0.2
(c)	Total spall materials*:	
	Fraction retained on the No. 4 [**4.75 mm**] sieve as a percentage of the total material	0.5
(d)	Soft particles ‖	2.5
(e)	Clay balls and lumps	0.3
(f)	Sum of (c) total spall materials, (d) soft particles, and (e) clay balls and lumps, use the percent in the total sample retained on the No. 4 [**4.75 mm**] sieve	3.0
(g)	Absorption for Class B aggregate	1.75
(h)	Carbonate in Class C and Class D aggregates by weight	30.0

* Includes the percentages retained by shale and soft iron oxide particles, plus other iron oxide particles, unsound cherts, pyrite, and other materials with similar characteristics.
‖ Exclusive of shale, soft iron oxide particles, and total spall materials.
† Sum of the total spall materials, soft particles, and clay balls and lumps. For total spall materials, use the percent in the total sample retained on the No. 4 [**4.75 mm**] sieve.

D3 Coarse Aggregate for Concrete Pavement

Provide coarse aggregate in accordance with 3137.2D1, except as modified by Table 3137-3, for use in the following:

(1) Concrete pavement, and
(2) Concrete pavement rehabilitation.

Table 3137-3
Coarse Aggregate for Concrete Pavement

Quality Test		**Maximum Percent by Weight**
(a)	Absorption for Class B aggregate	1.75
(b)	Carbonate in Class C aggregate by weight	30.0

E Gradation

Provide coarse aggregate in accordance with Table 3137-4 including all sizes within the specified limits. The Department defines coarse aggregate as the uniform product of the producing plant, unless some sizes are removed to meet the gradation requirements. Do not use broken or noncontinuous gradations.

If the coarse aggregate has less than 100 percent passing the 1 in [**25 mm**] sieve, proportion the coarse

aggregate using at least two fractions. Gradation requirements are based on the composite value of the combined coarse aggregates.

Table 3137-4
Coarse Aggregate Designation for Concrete,
percent by weight passing square opening sieves

Aggregate	2 in [50 mm]	1½ in [37.5 mm]	1¼ in [31.5 mm]	1 in [25.0 mm]	¾ in [19.0 mm]	⅝ in [16.0 mm]	½ in [12.5 mm]	⅜ in [9.5 mm]	No.4 [4.75 mm]
CA-00	—	—	—	100	95 – 100	—	—	—	0 – 10
CA-15	100	95 – 100	—	—	35 – 65	—	—	5 – 25	0 – 7
CA-25	100	95 – 100	—	—	50 – 80	—	—	20 – 40	0 – 7
CA-35	—	100	95 – 100	—	55 –85	—	—	20 – 45	0 – 7
CA-45	—	—	100	95 – 100	65 – 95	—	—	25 – 55	0 – 7
CA-50	—	—	—	100	85 – 100	—	—	30 – 60	0 – 12
CA-60	—	—	—	—	100	85 – 100	—	40 – 70	0 – 12
CA-70	—	—	—	—	—	100	85 – 100	50 – 100	0 – 25
CA-80*	—	—	—	—	—	—	—	100	55 – 95

* Do not allow greater than 5 percent to pass the No. 50 [300 µm] sieve.

If producing Class R aggregate, remove reinforcing steel from the concrete and any concrete material passing the No 4 [**4.75 mm**] sieve.

3137.3 SAMPLING AND TESTING

Sample and test coarse aggregate fractions separately in accordance with Table 3137-5.

Table 3137-5
Preliminary Coarse Aggregate Testing

Aggregate	Notification and Testing Requirement
New source	Notify the Engineer at least 1 month before use. Perform new source concrete aggregate testing in accordance with the procedure on the Department's website.
Previously tested aggregate	Notify the Engineer at least 2 weeks before use. Perform additional testing as directed by the Engineer, in conjunction with the Concrete Engineer.

Sample and test coarse aggregate in accordance with Table 3137-6.

Table 3137-6
Coarse Aggregate Test Methods

Test	Testing Method
Sampling	Mn/DOT Concrete Manual
Sieve analysis	Mn/DOT Concrete Manual
Shale test	Mn/DOT Laboratory Manual 1207
Quantity of material passing the No. 200 [**75 µm**] sieve	Mn/DOT Concrete Manual
Specific gravity and absorption	Mn/DOT Laboratory Manual 1204

Table 3137-6 **Coarse Aggregate Test Methods**	
Test	**Testing Method**
Density	AASHTO T 19 or Mn/DOT Laboratory Manual 1211
Los Angeles Rattler loss	AASHTO T 96
Void content	AASHTO T 19* or Mn/DOT Laboratory Manual 1211
Deleterious materials	Mn/DOT Laboratory Manual 1209
Soundness; magnesium sulfate	Mn/DOT Laboratory Manual 1219
Soft particles	Mn/DOT Laboratory Manual 1218
Flat or elongated pieces	ASTM D 4791
Clay balls or lumps	Mn/DOT Concrete Manual
* Base the void content on an oven-dry and compacted-by-rodding condition of the aggregate and a value of 62.4 lb per cu. ft [**1,000 kg per cu. m**] for water.	

(3138) AGGREGATE FOR SURFACE AND BASE COURSES

The provisions of Mn/DOT 3138 are hereby modified as follows:

The second paragraph of Mn/DOT 3138.2B Gradation Tables 3138-1 and 2, is revised to read as follows:

If Class 7 is substituted for Classes 1, 3, 4, 5, or 6, it shall meet the gradation requirements of the substituted class (Table 3138-1); except that, for Class 5 and 6, up to 5 percent by mass **(weight)** of the total composite mixture may exceed 25.0 mm (**1 inch**) sieve but 100 percent must pass the 37.5 mm (**1.5 inch**) sieve. Surfacing aggregate mixtures containing salvaged materials shall meet the gradation requirements of the materials specified in the Plan. All gradations will be run on the composite mixture before extraction of the bituminous material.

TABLE 3138-1 in Mn/DOT 3138.2B Gradation Tables 3138-1 and 2, is hereby deleted and replaced with the following:

TABLE 3138-1
BASE AND SURFACING AGGREGATE
Total Percent Passing

Sieve Size	Class 1 **(A)**	Class 2	Class 3 **(A)**	Class 4 **(A)**	Class 5 **(A) (B)**	Class 6 **(A) (B)**
75 mm (3 inches)	--	--	--	--	--	--
50 mm (2 inches)	--	--	100	100	--	--
37.5 mm (1½ inches)	--	--	--	--	--	--
25.0 mm (1 inch)	--	--	--	--	100	100

19.0 mm (3/4 inch)	100	100	--	--	90-100	90-100
9.5 mm (3/8 inch)	65-95	65-90	--	--	50-90	50-85
4.75 mm (No. 4)	40-85	35-70	35-100	35-100	35-80	35-70
2.00 mm (No. 10)	25-70	25-45	20-100	20-100	20-65	20-55
425 µm (No. 40)	10-45	12-30	5-50	5-35	10-35	10-30
75 µm (No. 200)	8.0-15.0	5.0-13.0	5.0-10.0	4.0-10.0	3.0-10.0	3.0-7.0

(A) When salvaged materials are substituted for another class of aggregate, it shall meet the gradation requirements of the class being replaced except as amended in 3138.2 B.

(B) The gradation requirements for aggregates containing 60% or more crushed quarry rock may be amended with the concurrence of the Project Engineer and the Grading and Base Engineer.

The first paragraph of Mn/DOT 3138.3 Sampling and Testing, is hereby deleted and replaced with the following:

Samples for testing to determine compliance with the aggregate gradation specifications for base and shoulder surfacing shall be obtained from the roadway at a time when the material is ready for compaction. However, Class 1, 2, and 7 shoulder surfacing aggregates may be sampled from a stockpile, tested, and accepted before roadway placement, provided that:

(a) No more than 25 percent of the stockpile samples fail to meet gradation requirements.
(b) The average of all stockpile tests meet requirements.
(c) The Contractor mixes the material during placement to the satisfaction of the Engineer.

The fifth paragraph of Mn/DOT 3138.3 Sampling and Testing, is revised to read as follows:

The stockpile shall be sampled at the rate of one field gradation test per 1,000 metric tons **(tons)** of aggregate used on the Project.

(3139) GRADED AGGREGATE FOR BITUMINOUS MIXTURES

Mn/DOT 3139 is hereby deleted and replaced with the following:

3139 Graded Aggregate for Bituminous Mixtures

3139.1 Scope

Provide graded aggregate for use in bituminous mixtures.

3139.2 PLANT MIXED ASPHALT Requirements

A Composition

Provide graded aggregate composed of any combination of the following sound durable particles as described in 3139.2B.

Do not use graded aggregate containing objectionable materials including:

(1) Metal,
(2) Glass,
(3) Wood,
(4) Plastic,
(5) Brick, or
(6) Rubber.

Provide coarse aggregate free of coatings of clay and silt.

Do not add soil materials such as clay, loam, or silt to compensate for a lack of fines in the aggregate.

Do not blend overburden soil into the aggregate.

Feed each material or size of material from an individual storage unit at a uniform rate.

Do not place blended materials from different sources, or for different classes, types, or sizes together in one stockpile unless approved by the Engineer as a Class E aggregate.

B Classification

B.1 Class A

Provide crushed igneous bedrock consisting of basalt, gabbro, granite, gneiss, rhyolite, diorite, and andosite. Rock from the Sioux Quartzite Formation may contain no greater than 4.0 percent non-Class A aggregate. Do not blend or add non-Class A aggregate to Class A aggregate.

B.2 Class B

Provide crushed rock from other bedrock sources such as carbonate and metamorphic rocks (Schist).

B.3 Class C

Provide natural or partly crushed natural gravel obtained from a natural gravel deposit.

B.4 Class D

Provide 100 percent crushed natural gravel produced from material retained on a square mesh sieve with an opening at least twice as large as Table 3139-2 allows for the maximum size of the aggregate in the composite asphalt mixture. Ensure the amount of carryover, material finer than the selected sieve, no greater than 10 percent of the Class D aggregate by weight.

B.5 Class E

Provide a mixture consisting of at least two of the following classes of approved aggregate:

(1) Class A,
(2) Class B, and
(3) Class D.

B.6 Steel Slag

Steel slag cannot exceed 25% of the total mixture aggregate and be free from metallic and other mill waste. The Engineer will accept stockpiles if the total expansion is no greater than 0.5 percent as determined by ASTM D 4792

B.7 Taconite Tailings

Obtain taconite tailings from ore mined westerly of a north-south line located east of Biwabik, Minnesota (R15W-R16W) or from ore mined in southwestern Wisconsin.

B.8 Recycled Asphalt Shingles (RAS)

Provide recycled asphalt shingles manufactured from waste scrap asphalt shingles (MWSS) or from tear-off scrap asphalt shingles (TOSS). Consider the percentage of RAS used as part of the maximum allowable Recycled Asphalt Pavement (RAP) percentage. See Table 3139-3.

B.8.A RAS Gradation Mn/DOT Laboratory Procedure 1801

Provide RAS in accordance with the following gradation requirements:

Table 3139-1
RAS Gradation

Sieve size	Percent passing
½ in [12.5 mm]	100
No. 4 [4.75 mm]	90

B.8.B Binder Content

Determine the binder content using chemical extraction meeting the requirements of Mn/DOT Lab Procedure 1851 or 1852.

B.8.C Bulk Specific Gravity

The Contractor may use an aggregate bulk specific gravity (Gsb) of 2.650 in lieu of determining the shingle aggregate Gsb in accordance with Mn/DOT Lab Procedure 1205.

B.8.D Waste Materials

Do not allow extraneous materials including metals, glass, rubber, nails, soil, brick, tars, paper, wood, and plastics greater than 0.5 percent by weight of the graded aggregate as determined by material retained on the No. 4 [4.75 mm] sieve as specified in Mn/DOT Laboratory Procedure 1801.

B.8.E Stockpile

Do not blend an RAS stockpile with other salvage material. Do not blend MWSS and TOSS. The Contractor may blend virgin sand material with RAS to minimize agglomeration if the Contractor accounts for the blended sand in the final mixture gradation.

B.8.F Certification

Ensure the processor provides RAS certification on the following Department form "Scrap Asphalt Shingles from Manufacture Waste" or "Tear-Off Scrap Asphalt Shingles" at

www.dot.state.mn.us/materials/bituminous.html

B.9 Crushed Concrete and Salvaged Aggregate

The Contractor may incorporate no greater than 50 percent of crushed concrete and salvaged aggregate in non-wear mixtures. Do not use crushed concrete in wearing courses.

B.10 Ash

Sewage sludge ash and waste incinerator ash are allowed as an aggregate source at a maximum of 5% of the total weight of the mixture. Only use sewage sludge ash meeting the requirements of the Tier II hazard evaluation criteria as approved by the Engineer with concurrence with Mn/DOT's Environmental Assessment Engineer in the mixture. Only use waste incinerator ash sources approved by the Engineer with concurrence with Mn/DOT's Environmental Assessment Engineer.

B.11 Recycled Asphalt Pavement (RAP)

B.11.A Aggregate Angularity

Provide combined RAP and virgin aggregates that meet the composite coarse and fine aggregate angularity for the mixture being produced.

B.11.B Objectionable Material

Do not use RAP containing objectionable materials including metal, glass, wood, plastic, brick, or rubber.

B.11.C Asphalt Binder Content

Determine the asphalt binder content using the Mn/DOT Lab Manual Method 1851 and 1852.

B.11.D Bulk Specific Gravity

Determine the bulk specific gravity in accordance with Mn/DOT Laboratory Procedure 1205 or 1815.

C Quality

C.1 Los Angeles Rattler Test Mn/DOT Laboratory Procedure 1210

Ensure a coarse aggregate loss no greater than 40 percent.

C.2 Soundness (Magnesium Sulfate) Mn/DOT Laboratory Procedure 1219

Maximum loss after 5 cycles on the coarse aggregate fraction (material retained on No. 4 [4.75 mm] sieve for any individual source within the mix) as follows:

(1) Percent passing the ¾ in [19 mm] sieve to percent retained on the ½ in [12.5 mm] sieve, ≤ 14%,
(2) Percent passing the ½ in [12.5 mm] sieve to percent retained on the ⅜ in [9.5 mm]sieve, ≤18%,
(3) Percent passing the ⅜ in [9.5 mm] sieve to percent retained on the No. 4 [4.75 mm] sieve, ≤ 23%,
(4) For the composite if all three size fractions are tested, the composite loss ≤ 18%, and acceptance will be granted if:
    (4.1) If the Contractor meets the composite requirement, but fails to meet at least one of the individual components, the Engineer may accept the source if each individual component is no greater than 110 percent of the requirement for that component.

(4.2) If the Contractor meets each individual component requirement, but fails to meet the composite, the Engineer may accept the source if the composite is no greater than 110 percent of the requirement for the composite.

Coarse aggregate that exceeds the requirements in this section for material passing the No. 4 [4.75 mm] sieve cannot be used.

C.3 Spall Materials and Lumps Mn/DOT Laboratory Procedure 1219

Stop asphalt production if the percent of spall or lumps measured in the stockpile or cold feed exceeds the values listed in Table 3139-3. Determine lump compliance by dry batching.

C.4 Insoluble Residue Test Mn/DOT Laboratory Procedure 1221

If using Class B carbonate materials ensure the portion of the insoluble residue passing the No. 200 [75 µm] sieve is no greater than 10 percent.

D Gradation

Ensure the aggregate gradation broad bands meet the following requirements in accordance with AASHTO T-11 (passing the No. 200 [75 µm] wash) and AASHTO T-27.

Table 3139-2
Aggregate Gradation Broad Bands (percent passing of total washed gradation)

Sieve size	A	B	C	D
1 in [25.0 mm]	—	—	100	—
¾ in [19.0 mm]	—	100*	85 – 100	—
½ in [12.5 mm]	100*	85 – 100	45 – 90	—
⅜ in [9.5 mm]	85 – 100	35 – 90	—	100
No. 4 [4.75 mm]	25 – 90	30 – 80	30 – 75	65 – 95
No. 8 [2.36 mm]	20 – 70	25 – 65	25 – 60	45 – 80
No. 200 [0.075 mm]	2.0 – 7.0	2.0 – 7.0	2.0 – 7.0	3.0 – 8.0

* The Contractor may reduce the gradation broadband for the maximum aggregate size to 97 percent passing for mixtures containing RAP, if the oversize material originates from the RAP source. Ensure the virgin material meets the requirement of 100 percent passing the maximum aggregate sieve size.

Table 3139-3
Mixture Aggregate Requirements

Aggregate Blend Property	Traffic Level 2	Traffic Level 3	Traffic Level 4	Traffic Level 5
20 year Design ESAL's	<1 million	1 - 3 million	3 - 10 million	10 – 30 million

Min. Coarse Aggregate Angularity (ASTM D5821) (one face / two face), %- Wear (one face / two face), %- Non-Wear	30/- 30/-	55 / - 55 / -	85 / 80 60/ -	95 / 90 80 / 75
Min. Fine Aggregate Angularity (FAA) (AASHTO T304, Method A) %-Wear %-Non-Wear	40 40	42 40	44 40	45 40
Flat and Elongated Particles, max % by weight, (ASTM D 4791)	-	10 (5:1 ratio)	10 (5:1 ratio)	10 (5:1 ratio)
Min. Sand Equivalent (AASHTO T 176)	-	-	45	45
Max. Total Spall in fraction retained on the #4 [4.75mm] sieve – Wear Non-Wear	5.0 5.0	2.5 5.0	1.0 2.5	1.0 2.5
Maximum Spall Content in Total Sample – Wear Non-Wear	5.0 5.0	5.0 5.0	1.0 2.5	1.0 2.5
Maximum Percent Lumps in fraction retained on the #4 [4.75mm] sieve	0.5	0.5	0.5	0.5
Class B Carbonate Restrictions				
Maximum% -#4 [-4.75mm] Final Lift/All other Lifts	100/100	100/100	80/80	50/80
Maximum% +#4 [+4.75mm] Final Lift/All other Lifts	100/100	100/100	50/100	0/100
Max. allowable scrap shingles–MWSS(1) Wear/Non Wear	5/5	5/5	5/5	5/5
Max. allowable scrap shingles –TOSS(1) Final Lift/All other Lifts	5/5	5/5	0/5	0/0

(1) MWSS is manufactured waste scrap shingle and TOSS is tear-off scrap shingle.

3139.3 Permeable Asphalt Stabilized Stress Relief Course (PASSRC) and Permeable Asphalt Stabilized Base (PASB) Requirements

A Restrictions

Do not use recycled materials including glass, concrete, bituminous, shingles, ash, and steel slag.

B Gradation

The Gradation limits are also considered the Job Mix Formula (JMF) limits.

B.1 PASB

Table 3139-4 PASB Aggregate Gradation	
Sieve Size	Percent Passing
1 ½ inch [37.5 mm]	100
1 inch [25.0 mm]	95 - 100
¾ inch [19.0 mm]	85 – 95
3/8 inch [9.5 mm]	30 – 60
No. 4 [4.75 mm]	10 – 30
No. 8 [2.36 mm]	0 – 10
No. 30 [600 µm]	0 – 5
No. 200 [75 µm]	- 3

B.2 PASSRC

Table 3139-5 PASSRC Aggregate Gradation	
Sieve Size	Percent Passing
5/8 inch [16.0 mm]	100
1/2 inch [12.5 mm]	85 – 100
3/8 inch [9.5 mm]	50 – 100
No. 4 [4.75 mm]	0 – 25
No. 8 [2.36 mm]	0 – 5

C Quality

Requirements will meet all of 3139.2.C.

D Mixture Quality Requirements

Table 3139-6 Mixture Aggregate Requirements for PASSRC & PASB	
Aggregate Blend Property	
Coarse Aggregate Angularity (ASTM D5821) (one face/two face) % PASSRC (1) PASB (1)	 95/- -/65
Fine Aggregate Angularity (FAA) (AASHTO T304, Method A) %	NA
Flat and Elongated Particles, max(2) % by weight, (ASTM D 4791)	NA
Clay Content (2) (AASHTO T 176)	NA
Total Spall in fraction retained on the 4.75mm [**#4**] sieve	3.0

Maximum Spall Content in Total Sample	5.0
Maximum Percent Lumps in fraction retained on the 4.75mm [**#4**] sieve	0.5

(1) Carbonate Restrictions: If Class B (as defined in 3139.2.B.2), crushed carbonate quarry rock (limestone or dolostone), is used in the mixture, or if carbonate particles in the material retained on the 4.75 mm [**No. 4**] sieve exceeds 55 percent, by weight, the minus 0.075 mm [# **200**] sieve size portion of the insoluble residue shall not exceed 10 percent.

3139.4 Ultra Thin Bonded Wearing Course (UTBWC) Requirements.

A. Restrictions

Do not use recycled materials including glass, concrete, bituminous, shingles, ash, and steel slag.

B. Coarse Aggregate

Provide a Class A aggregate, as defined in 3139.2.B.1, in accordance with the following requirements:

Table 3139-7
UTBWC Coarse Aggregate Requirements

Tests	**Mn/DOT Laboratory Manual Method**	**Limit, %**
Flat and elongated ratio at 3:1	1208	≤ 25
Los Angeles Rattler Test (LAR)	1210	≤ 40
Bulk Specific Gravity	1204	

C. Fine Aggregate

Provide fine aggregate, passing the No. 4 [4.75 mm] sieve in accordance with the following requirements:

Table 3139-8
Fine Aggregate Requirements

Tests	**Method**	**Limit, %**
Sand equivalent*	AASHTO T 176	≥ 45
Uncompacted void content	Mn/DOT Laboratory Manual 1206	≥ 40
Bulk Specific Gravity	Mn/DOT Laboratory Manual 1205	

3139.5 SAMPLING AND TESTING

Perform sampling, sieve analysis, lumps, crushing, and shale testing meeting the requirements of the Mn/DOT Laboratory Manual.

Each Class A and each Class C Aggregate shall not exceed 5.0 percent spall and the lumps in the fraction retained on the No. 4 sieve shall not exceed 0.5 percent.

(3301) REINFORCEMENT BARS

The third to the last paragraph of Mn/DOT 3301.2 is hereby deleted and replaced with the following:

When epoxy coated reinforcement bars are specified, coating shall be in conformance with AASHTO M 284M/M 284-06. Application of epoxy coating shall be made in a fusion bonded epoxy coating plant that has been granted "Certification" by the Concrete Reinforcing Steel Institute, or an organization approved by the Materials Engineer.

(3876) SEED

The provisions of Mn/DOT 3876 are supplemented and/or modified with the following:

The second paragraph of Mn/DOT 3876.1 is hereby deleted and replaced with the following:

Pure live seed (PLS) is the percent of seed germination plus dormant and/or hard seed times the percent of seed purity of each species divided by 100.

Mn/DOT 3876.2A General Requirements is hereby deleted and replaced with the following:

A General Requirements

All seed lots shall conform to the latest seed law of the State (Minnesota Statutes 21.80-21.91, last revised 8/2/06), and any applicable federal regulations, including those governing labeling and weed seed tolerances. Seed lots sold or offered for sale in the state of Minnesota are subject to inspection, sampling, and testing for verification of label claims and compliance with the Minnesota Seed Law by the Department of Agriculture (M.S. 18J.04). Tolerances for germination and purity factors will be applied as established in Rules 1510.0050, 1510.0060, 1510.0070, 1510.0080, 1510.0090 and 1510.0100 to seed lots sampled and tested by official methods. For all seed used in Mn/DOT mixes or projects, tests for viability (including germination and TZ tests) are valid for 12 months from the test date, exclusive of the month the test was completed. Seed shall be installed while tests are still valid.

All legume seed, including native legumes, shall have been pre-inoculated with the proper bacterial culture for the species being inoculated and with the bacteria culture designed for this purpose (pre-inoculation), in the manner and within the time specified by the manufacturer.

A1 Labeling

Contractor shall supply seed that is labeled according to the labeling requirements for agricultural seed as set forth in the Minnesota Seed Law, section 21.82. The Contractor shall supply seed that also contains the following information:

a) County of genetic origin for each native component (List at least two counties for germplasm comprising accessions from multiple counties)

b) PLS percent for each mix component (Purity x Total Germination and Hard or Dormant Seed/100) for each mix component **(For PLS component of mix's)**

c) Total PLS weight for the bag. The tag shall identify this as the pay item. **(For PLS component of mix's)**

d) Total bulk weight for the bag

e) Area covered by the amount of seed in the bag when applied at the rate specified for the mix

f) All information pertaining to individual components in a mix is required for all components, including those that constitute less than 5% of the total mix.

Tags must not be hand written. If any of the above mentioned information is not included on the tag the material will be subject to specification 1503. When multiple bags are required to keep certain species or groups of species separate for the purpose of seeding those bags may be placed inside of a larger bag as long as each bag is labeled separately and the outer bag is labeled with the name of the mix.

Each package of seed must include a "Certified Vendor" tag that is issued by Mn/DOT Erosion Control unit. This will indicate that the seed has come from a Mn/DOT Approved Seed Vendor as described in 3876.3.

A2 Seed Cleaning

Contractor shall use seed that has been cleaned to an extent sufficient to allow its passage through appropriate seeding equipment. Seed of introduced species must be suitable for use in conventional seeders. Seed of native species must be suitable for use in native seed drills without plugging up the boxes, drop tubes, or planting units of the seed drills. Contractor shall not use seed that has been conditioned so much that it suffers reduced viability as a result.

A3 Substitutions

Alternate species or germplasm may only be used by requesting permission from the Office of Environmental Services Turf and Erosion Control Engineering Unit. Requests for permission must include written proof from three potential suppliers that the specified germplasm is not available. Approved substitutions will be named in a memo at the time they are approved. All currently approved substitutions will be posted on the Office of Environmental Services Erosion Control Unit website. Use of germplasm not listed herein will be considered unacceptable and will be subject to 1503.

A4 Requirements for seed of native species

Contractor shall supply and plant all seed in the 300 series mixes as pure live seed (PLS). This includes the cover crop, grass, sedge, and forb components. All seed in the cover crop component of mixes in the 300 series must be certified by the Minnesota Crop Improvement Association (MCIA) or the appropriate seed certifying agency in the seed's state of origin, if other than Minnesota.

All native seed used in mixes in the 300 series shall be certified by the Minnesota Crop Improvement Association (MCIA) in the Source Identified class. The genetic origin for this seed shall be within Minnesota or eastern North Dakota, eastern South Dakota, northern Iowa, or western Wisconsin.

Source Identified seed shall be accompanied by the appropriate quality mark documentation from the MCIA, in the form of a MCIA-labeled yellow tag or certification certificate. County of genetic origin shall be clearly identified on the seed label for all native seed. Selected class and Tested class germplasm of native species listed in Table 3876-1 located on the website of the Office of Environmental Services Erosion Control unit may be used in 100 and 200 series seed mixtures.

If a specified species or germplasm is not available, substitutions will be granted for native seed in the 300 series mixes according to the following order of preference:

1) First preference, MCIA certified Source Identified class with a genetic origin in Minnesota or eastern North Dakota, eastern South Dakota, northern Iowa, or western Wisconsin
2) Second Preference: Source Identified seed certified by a seed certifying agency other than MCIA but with a genetic origin in Minnesota or eastern North Dakota, eastern South Dakota, northern Iowa, or western Wisconsin
3) Third Preference: Certified seed of varieties/germplasm listed in Table 3876-1.
4) Fourth Preference: Wild Type from Minnesota or eastern North Dakota, eastern South Dakota, northern Iowa, or western Wisconsin. Wild type seed is defined as seed of a local or regional ecotype that has originated from remnant native stands and that has not undergone any intentional selection process.

Mn/DOT Table 3876-1 is hereby deleted and replaced with the following:

TABLE 3876-1
NATIVE GRASSES
SEED COUNTS AND ACCEPTABLE GERMPLASM

Trade Name	Scientific Name+	Acceptable Varieties/Germplasm*	Seeds Per Pound

TABLE 3876-1
NATIVE GRASSES
SEED COUNTS AND ACCEPTABLE GERMPLASM

Trade Name	Scientific Name+	Acceptable Varieties/Germplasm*	Seeds Per Pound
Big Bluestem	Andropogon gerardi	Bonilla, Bison	131,200
Sideoats Grama	*Bouteloua curtipendula*		96,000
Blue Grama	*Bouteloua gracilis*		640,000
Fringed Brome	*Bromus ciliatus*		160,000
Kalm's Brome	*Bromus kalmii*		128,000
Hairy wood chess	*Bromus purgans*		121,600
Buffalo grass	*Buchloe dactyloides*		51,200
Blue-joint grass	*Calamagrostis Canadensis*		3,360,000
Bottle Brush Sedge	*Carex comosa*		384,000
Tussock Sedge	*Carex stricta*		848,000
Fox Sedge	*Carex vulpinoidea*		1,440,000
Canada Wild Rye	*Elymus canadensis*	Mandan	67,200
Bottle brush grass	*Elymus hystrix*		75,200
Slender Wheat Grass	*Elymus trachycaulus*	Revenue	135,000
Virginia Wild Rye	*Elymus virginicus*		62,400
Western Wheat Grass	*Elytrigia smithii*		113,600
Reed Manna Grass	*Glyceria grandis*		1,280,000

TABLE 3876-1
NATIVE GRASSES
SEED COUNTS AND ACCEPTABLE GERMPLASM

Trade Name	Scientific Name+	Acceptable Varieties/Germplasm*	Seeds Per Pound
Fowl Manna Grass	*Glyceria striata*		2,560,000
Common rush	*Juncus effusus*		16,000,000
June Grass	*Koeleria macrantha*		2,400,000
Switch Grass	*Panicum virgatum*	Forestburg, Dacotah	224,000
Fowl Bluegrass	*Poa palustris*		2,080,000
Canada Bluegrass	*Poa compressa*		2,400,000
Little Bluestem	*Schizachyrium scoparium*	Itasca Germplasm	140,800
Green Bulrush	*Scirpus atrovirens*		2,240,000
Wool-grass	*Scirpus cyperinus*		2,880,000
Soft-stem Bulrush	*Scirpus validus*		496,000
Indian Grass	*Sorghastrum nutans*	Tomahawk	132,800
Prairie Cordgrass	*Spartina pectinata*	Red River Germplasm	105,600
Rough Dropseed	*Sporobolus asper*		480,000
Sand Dropseed	*Sporobolus cryptandrus*		3,200,000
Prairie Dropseed	*Sporobolus heterolepsis*		224,000
Green Needle Grass	*Stipa viridula*		120,000

TABLE 3876-1 NATIVE GRASSES SEED COUNTS AND ACCEPTABLE GERMPLASM			
Trade Name	**Scientific Name+**	**Acceptable Varieties/Germplasm***	**Seeds Per Pound**
* Varieties listed are approved for use in 100 and 200 series mixes. Their substitution for MCIA Source Identified seed in 300 series mixes is only allowed upon satisfaction of the requirements of 3876.2 A5. When multiple varieties are listed for a single species, they are listed in order of preference.			

Delete Mn/DOT 3876.2B Requirements for Native Grasses, Sedges, Rushes (label and paragraphs) and replace with:

B Requirements for Native Grasses, Sedges, and Rushes Table 3876-1
(Keep table 3876-1)

Delete Mn/DOT 3876.2E Requirements for Native Forbs (Wildflowers): (label and paragraphs) and replace with:

E Requirements for Native Forbs (Wildflowers) Table 3876-4
(Keep table 3876-4)

Mixtures 260 and 270 in Mn/DOT Table 3876-5 are hereby deleted and replaced with the following:

Mixture: 260			
Common Name	**Bulk Rate**		**% of Mix Component**
	kg/ha	**lb/ac**	
Bluegrass, Kentucky "Certified Park"	35.8	40	32.0
Bluegrass, Canada	11.2	12.5	10.0
Bluegrass, Kentucky - Low Maintenance [1]	33.6	37.5	30.0
Fescue, hard	9.0	10	8.0
Rye-grass, perennial	22.4	25	20.0
GRAND TOTALS:	**112**	**125**	**100.0**
[1] Any accepted low maintenance Kentucky Bluegrass Except "Park" ***Purpose: Commercial Turf***			

Mixture: 270			
Common Name	**Bulk Rate**		**% of Mix Compo nent**
	kg/ac	**lb/ac**	
Bluegrass, Kentucky - Elite	33.6	37.5	25.0
Bluegrass, Kentucky - Improved	33.6	37.5	25.0
Bluegrass, Kentucky - Low Maintenance	33.6	37.5	25.0
Red fescue, creeping	10.8	12	8.0
Rye-grass, perennial	22.8	25.5	17.0
GRAND TOTALS:	**134.4**	**150**	**100.0**
Purpose: Residential Turf			

The 300 series mixes from Mn/DOT Table 3876-5 are hereby deleted and replaced with the following:

Table 3876-5

Mixture: 310			
Common Name	**PLS Rate**		**% of Mix Compo nent**
	kg/ha	**lb/ac**	
Bluestem, big	2.8	2.5	25.0
Indian grass	2.8	2.5	25.0
Wild-rye, Virginia	2.2	2.0	20.0
Switch grass	0.6	0.5	5.0
Blue-joint grass	0.3	0.25	2.5
Green bulrush	0.3	0.25	2.5
Wool grass	0.3	0.25	2.5
Giant bur reed	0.3	0.25	2.5
Cordgrass, prairie	1.7	1.5	15.0
Grass Totals:	**11.3**	**10.0**	**100.0**
	kg/ha	**lb/ac**	
Winter Wheat*	62.7	56.0	80.0
Rye-grass, annual	12.5	11.2	16.0
Wheatgrass, slender	3.1	2.8	4.0

Mixture: 310			
Common Name	**PLS Rate**		**% of Mix Component**
	kg/ha	**lb/ac**	
Cover Crop Totals:	**78.3**	**70**	**100.0**
Wet Forbs Mixture (Table 3876-6)	**2.2**	**2.0**	**100.0**
GRAND TOTALS:	**91.8**	**82.0**	**100.0**
*Oats to be substituted for spring plantings			
Purpose: Native mix for wetter areas. Infiltration ponds, dry ponds, wet ditches. Tall height.			

Mixture: 325			
Common Name	**PLS Rate**		**% of Mix Component**
	kg/ha	**lb/ac**	
Bluestem, big	1.7	1.5	15.0
Fringed brome	1.7	1.5	15.0
Wheat grass, slender	1.7	1.5	15.0
Virginia wild-rye	1.7	1.5	15.0
Switch grass	0.6	0.5	5.0
Fowl bluegrass	1.7	1.5	15.0
Indian grass	1.7	1.5	15.0
Prairie cord grass	0.6	0.5	5.0
Grass Totals:	**11.4**	**10.0**	**100.0**
Common Name	**PLS Rate**		**% of Mix Component**
	kg/ha	**lb/ac**	
Blue-joint grass	0.22	0.2	10.0
Bottlebrush sedge	0.34	0.3	15.0

Tussock sedge	0.22	0.2	10.0
Fox sedge	0.22	0.2	10.0
Reed manna grass	0.22	0.2	10.0
Fowl manna grass	0.22	0.2	10.0
Green bulrush	0.22	0.2	10.0
Wool grass	0.22	0.2	10.0
Soft-stem bulrush	0.34	0.3	15.0
Sedge Totals:	**2.22**	**2.0**	**100.0**

Common Name	**PLS Rate**		**% of Mix Component**
	kg/ha	**lb/ac**	
Winter Wheat*	61.6	56	80.0
Rye-grass, annual	12.3	11.2	16.0
Wheatgrass, slender	3.1	2.8	4.0
Cover Crop Totals:	**77**	**70**	**100.0**
Wet Forbs Mixture (Table 3876-6)	**2.2**	**2.0**	**100.0**
GRAND TOTALS:	**92.8**	**84.0**	**100.0**

*Oats to be substituted for spring plantings

Purpose: Native sedge/prairie meadow mix. Reaches a height of 915 mm to 1220 mm (36 to 48 inches). Developed for use on hydric soils and for wetland restoration.

Mixture: 328

Common Name	**PLS Rate**		**% of Mix Component**
	kg/ha	**lb/ac**	
Bluestem, big	2.2	2	12.5
Brome, fringed	2.2	2	12.5
Wild-rye, Virginia	4.4	4	25.0

Switchgrass	1.1	1	6.3
Bluegrass, fowl	5.5	5	31.2
Indian grass	2.2	2	12.5
Grass Totals:	**17.6**	**16.0**	**100.0**
Common Name	**PLS Rate**		**% of Mix Compo nent**
	kg/ha	**lb/ac**	
Winter Wheat*	61.6	56.0	80.0
Rye-grass, annual	12.3	11.2	16.0
Wheatgrass , slender	3.1	2.8	4.0
Cover Crop Totals:	**77**	**70**	**100.0**
Common Name	**PLS Rate**		**% of Mix Compo nent**
	kg/ha	**lb/ac**	
Milkweed, marsh	0.33	0.3	15.0
Prairie clover, purple	0.33	0.3	15.0
Tic-trefoil, showy	0.33	0.3	15.0
Sunflower, early	0.33	0.3	15.0
Black-eyed Susan	0.55	0.5	25.0
Vervain, blue	0.33	0.3	15.0
Economy Forbs Totals:	**2.2**	**2.0**	**100.0**
GRAND TOTALS:	**96.8**	**88.0**	**100.0**
*Oats to be substituted for spring plantings			
Purpose: Native mix for infiltration ponds, dry ponds, temporary wet ditches. Tall height.			

Mixture: 330			
Common Name	**PLS Rate**		**% of Mix Compo nent**
	kg/ha	**lb/ac**	

Grama, sideoats	3.4	3.0	21.5
Grama, blue	2.8	2.5	18.0
Bluestem, little	3.9	3.5	25.0
June grass	1.1	1.0	7.0
Dropseed, sand	1.1	1.0	7.0
Wild-rye, Canadian	3.4	3.0	21.5
Grass Totals:	**15.7**	**14.0**	**100.0**
Common Name	**PLS Rate**		**% of Mix Component**
	kg/ha	**lb/ac**	
Winter Wheat*	62.7	56.0	80.0
Rye-grass, annual	12.5	11.2	16.0
Wheatgrass, slender	3.1	2.8	4.0
Cover Crop Totals:	**78.3**	**70**	**100.0**
Dry Forbs Mixture (Table 3876-6)	**0.6**	**0.5**	**100.0**
GRAND TOTALS:	**94.6**	**84.5**	**100.0**
*Oats to be substituted for spring plantings			
Application: Native mix for Sandy/dry areas. Short height.			

Mixture: 340			
Common Name	**PLS Rate**		**% of Mix Component**
	kg/ha	**lb/ac**	
Bluestem, big	3.3	3.0	21.5
Bluestem, little	2.8	2.5	18.0
Wild-rye, Canadian	2.2	2.0	14.0
Grama, sideoats	2.2	2.0	14.0
Switch grass	0.6	0.5	4.0
Dropseed, sand	0.6	0.5	3.5
Bluegrass, Canada	3.4	3.0	21.5
June grass	0.6	0.5	3.5
Grass Totals:	**15.7**	**14.0**	**100.0**
	PLS Rate		**% of**

	kg/ha	lb/ac	
Winter Wheat*	62.7	56.0	80.0
Rye-grass, annual	12.5	11.2	16.0
Wheatgrass, slender	3.1	2.8	4.0
Cover Crop Totals:	**78.3**	**70**	**100.0**
Dry Forbs Mixture (Table 3876-6)	**0.6**	**0.5**	**100.0**
GRAND TOTALS:	**94.6**	**84.5**	**100.0**
*Oats to be substituted for spring plantings			
Purpose: Native mix for Sandy/Dry areas. Mid-height.			

Mixture: 350			
Common Name	**PLS Rate**		**% of Mix Component**
	kg/ha	**lb/ac**	
Bluestem, big	3.4	3.0	21.5
Indian grass	2.8	2.5	18.0
Bluestem, little	2.8	2.5	18.0
Grama, sideoats	3.4	3.0	21.5
Wild-rye, Canadian	2.2	2.0	14.0
Switch grass	1.1	1.0	7.0
Grass Totals:	**15.7**	**14.0**	**100.0**
	PLS Rate		**% of Mix**

	kg/ha	lb/ac	
Winter Wheat*	62.7	56.0	80.0
Rye-grass, annual	12.5	11.2	16.0
Wheatgrass, slender	3.1	2.8	4.0
Cover Crop Totals:	**78.3**	**70**	**100.0**
Mesic Forbs Mixture (Table 3876-6)	**0.6**	**0.5**	**100.0**
GRAND TOTALS:	**94.6**	**84.5**	**100.0**
*Oats to be substituted for spring plantings			
Application: Native mix for general roadside areas.			

Mn/DOT Table 3876-6 is hereby deleted and replaced with the following:

Table 3876-6

Mixture: Mesic Forbs		
Common Name	**Botanical Name**	**% of Mix**
Aster, smooth-blue	*Aster laevis*	5.0
Milkvetch, Canada	*Astragalus canadensis*	5.0
Prairie clover, white	*Dalea candidum*	5.0
Prairie clover, purple	*Dalea purpureum*	5.0
Tick-trefoil. Showy	*Desmodium canadense*	5.0
Coneflower, narrow-leaved	*Echinacea angustifolia*	5.0
Ox-eye, common	*Heliopsis helianthoides*	5.0
Coneflower, grey-headed	*Ratibida pinnata*	5.0
Blazingstar, rough	*Liatris aspera*	5.0
Blazingstar, tall	*Liatris pycnostachya*	5.0
Bergamot, wild	*Monarda fistulosa*	5.0
Penstemon, showy	*Penstemon grandiflorum*	5.0

Mint, mountain	*Pycnathemum virginianum*	5.0
Coneflower, columnar	*Ratibida columnifera*	5.0
Black-eyed Susan	*Rudbeckia hirta*	5.0
Goldenrod, stiff	*Solidago rigida*	5.0
Vervain, blue	*Verbena hastata*	5.0
Vervain, hoary	*Verbena stricta*	5.0
Alexanders, heart-leaved	*Zizea aptera*	5.0
Alexanders, golden	*Zizia aurea*	5.0
	Total:	**100.0**
Rate: 0.6 kg/ha (½ pounds per acre) PLS.		

Mixture: Dry Forbs		
Common Name	**Botanical Name**	**% of Mix**
Leadplant	*Amorpha canescens*	10.0
Milkweed, butterfly	*Asclepias tuberosa*	2.0
Aster, heath	*Aster ericoides*	4.0
Tic-seed, stiff	*Coreopsis palmate*	2.0
Yarrow	*Achillea millefolium*	2.0
Long-leaved bluets	*Hedyotis longifolia*	1.0
Bushclover, round-headed	*Lespedeza capitata*	3.0
Blazingstar, rough	*Liatris aspera*	4.0
Blazingstar, dotted	*Liatris punctata*	3.0
Lupine, wild	*Lupinus perennis*	5.0
Prairie clover, white	*Dalea candidum*	5.0
Prairie clover, purple	*Dalea purpureum*	16.0
Prairie rose	*Rosa arkansana*	1.0
Black-eyed susan	*Rudbeckia hirta*	18.0
Goldenrod, gray	*Solidago nemoralis*	3.0
Goldenrod, upland	*Solidago ptarmicoides*	1.0
Goldenrod, stiff	*Solidago rigida*	2.0
Goldenrod, showy	*Solidago speciosa*	2.0
Vervain, hoary	*Verbena stricta*	14.0
Alexander's,golden	*Zizea aurea*	2.0
	Total:	**100.0**
Rate: 0.6 kg/ha (½ pounds per acre) PLS		

Mixture: Wet Forbs		
Common Name	**Botanical Name**	**% of Mix**
Hyssop, fragrant giant	*Agastache foeniculum*	2.0

Water plantain	*Alisma subcordatum*	4.0
Meadow garlic	*Allium canadense*	1.0
Anemone, Canada	*Anemone Canadensis*	1.0
Milkweed, marsh	*Asclepias incarnata*	2.0
Aster, panicled	*Aster simplex*	3.0
Aster, New England	*Aster novaeangliae*	3.0
Aster, red-stalked	*Aster puniceus*	3.0
Aster, flat-topped	*Aster umbellatus*	1.0
Tick trefoil, Canada	*Desmodium glutinosum*	1.0
Joe-pye weed	*Eupatorium maculatum*	17.0
Boneset	*Eupatorium perfoliatum*	10.0
Goldenrod, grass-leaved	*Solidago graminifolia*	2.0
Sneezeweed	*Helenium autumnale*	1.0
Giant sunflower	*Helianthus giganteus*	2.0
Ox-eye, common	*Heliopsis helianthoides*	1.0
Great St. John's wort	*Hypericum pyvamidatum*	2.0
Iris, wild	*Iris versicolor*	1.0
Blazingstar, tall	*Liatris pycnostachya*	8.0
Bergamot, wild	*Monarda fistulosa*	1.0
Prairie clover, white	*Dalea candidum*	1.0
Prairie clover, purple	*Dalea purpureum*	2.0
Mountain mint	*Pycnathemum virginianum*	1.0
Black-eyed susan	*Rudbeckia hirta*	6.0
Goldenrod, stiff	*Solidago rigida*	2.0
Tall meadow rue	*Thalictrum dasycarpum*	2.0
Vervain, blue	*Verbena hastata*	14.0

Ironweed	*Veronia fasciculate*	1.0
Culver's root	*Veronicastrum virginicum*	3.0
Alexander's, golden	*Zizea aurea*	2.0
	Total:	**100.0**
Rate: 2.2 kg/ha (2 pounds/acre) PLS		

(3889) TEMPORARY DITCH CHECKS

The provisions of Mn/DOT 3889 are supplemented and/or modified with the following:

Mn/DOT 3889.2B Type 2: Bioroll, is revised to read as follows:

Type 2 ditch checks shall consist of 3897 Filter Log Type; Straw Bioroll or Wood Fiber Bioroll.

Mn/DOT 3889.2C Type 3: Bioroll Blanket System, is revised to read as follows:

Type 3 ditch checks shall consist of two components; Filter Log Type; Straw Bioroll or Wood Fiber Bioroll in accordance with 3897, staked on top of a Category 3, specification 3885 erosion control blanket. The blanket shall form a minimum width of 3.7 m **(12 feet)** perpendicular to the ditch gradient.

INDEX TO DIVISION SB

DIVISION SB

BRIDGE PLANS

The plans for this Project, consisting of the sheets tabulated below, were approved by the State Bridge Engineer.

BRIDGE NO.	TOTAL SHEETS	SHEET NO.	DATE OF APPROVAL
07547	16	B1-B16	
07557	21	B1-B21	
07592	26	B1-B26	
07593	16	B1-B16	

New or revised sheets were approved as listed below:

BRIDGE NO.	SHEET NO.	DATE OF APPROVAL

I hereby certify that the Special Provisions for bridge construction (Division SB) contained in this Proposal were prepared by me or under my direct supervision, and that I am a duly licensed Professional Engineer under the laws of the State of Minnesota.

(Jeff A Johnson, PE)

Date: 2/2/2010 Lic. No. 17280

SB-1 **(1706) EMPLOYEE HEALTH AND WELFARE**

The provisions of Mn/DOT 1706 are supplemented as follows:

The Contractor shall submit a plan, at the preconstruction conference, for providing all OSHA required safety equipment (safety nets, static lines, false decks, etc.) for all work areas whose working surface is 1.8 meters (**6 feet**) or more above the ground, water, or other surfaces. Submittal of this plan will in no way relieve the Contractor of his/her responsibility for providing a safe working area.

All safety equipment, in accordance with the Contractor's plan, must be inplace and operable in adequate time to allow Mn/DOT personnel to perform their required inspection duties at the appropriate time. No concrete shall be placed in any areas affected by such required inspection until the inspection has been completed.

The installation of safety lines, safety nets, or other systems whose purpose is to reduce the hazards of bridge work may require the attachment of anchorage devices to beams, girders, diaphragms, bracing or other components of the structure. Clamp type anchorage systems which do not require modification of structural members may be used provided they do not interfere with proper execution of the work; however, if the Contractor desires to use an anchorage system which requires modification of structural members, s/he shall request approval, in writing, for plan modification as provided in Mn/DOT Specifications. Requests to install systems which require field welding or drilling of primary stress carrying members of a bridge will not be approved. The Contractor shall indicate any portions of anchorage devices which will remain permanently in the structure.

On both ends of each pier cap extending 1.8 meters (**6 feet**) or more above the ground, the Contractor shall install an insert or other suitable anchorage to which safety lines can be attached. Any portion of said device extending outside the finished lines of the pier cap shall be removed unless otherwise approved by the Engineer. Any void or cavity resulting from the installation or removal of this device shall be repaired or sealed to prevent the ponding or entry of water as directed by the Engineer.

Approved anchorage systems shall be furnished, installed, and removed at no increased cost to the State for materials, fabrication, erection, or removal of the bridge component or anchorage system.

The Contractor is hereby notified that paint systems on Bridge No. contain lead. Precautions to protect worker health and safety may be necessary if operations by the Contractor result in removal or detachment of paint from metal surfaces.

SB-2 **(1717) AIR, LAND AND WATER POLLUTION**

The provisions of 1717 are supplemented as follows:

The Contractor's attention is hereby directed to MPCA Rule 7011.0150 as it relates to sandblasting and/or concrete removal operations (http://www.pca.state.mn.us/index.cfm).

SB-3 **(2104) REMOVAL OF ASBESTOS AND REGULATED WASTE (BRIDGE)**

This work shall consist of the removal and disposal of any regulated waste found on existing bridges or from the utilities located on the bridge, in accordance with the applicable Mn/DOT Standard Specifications and the following:

SB-3.1 If during the course of removal or renovation of utility or bridge, additional asbestos materials or regulated wastes, other than that noted in the Assessment Summary are encountered, the Contractor shall notify the Mn/DOT Project Engineer who shall suspend work and the Contractor shall furnish a documented inspection and evaluation by a Mn/DOT approved certified MDH contractor prior to the resumption of work. The work, as outlined in this paragraph, will be paid for as Extra Work.

SB-3.2 All asbestos and/or regulated waste shall be disposed of in accordance with Mn/DOT's manual. Only those listed in this manual as pre-approved for asbestos and/or regulated waste will be allowed to work on this Project. The Contractor's shall use Mn/DOT approved companies for testing, waste transport and disposal as provided and described in Mn/DOT's manual "*Asbestos and Regulated Waste Manual For Structure Demolition Or Relocations for Construction Projects*" available on the following website: http://www.dot.state.mn.us/environment/regulated-materials/index.html. Contact Mark Vogel, Mn/DOT Office of Environmental Services, 651-366-3630 with any questions regarding the manual.

SB-3.3 All material shall be removed, identified, and disposed of in accordance with Section S-1701 (LAWS TO BE OBSERVED (BRIDGE)) of these Special Provisions. The Contractor will not receive permission to begin the regulated waste removals, with the exception of material needed for hazardous and regulated waste assessment or testing, until the Engineer has copies of all required notices.

SB-3.4 The Contractor will not be allowed to proceed with the demolition or renovation of bridges until the Engineer has received copies of all required notifications as indicated in Section S-1701 (LAWS TO BE OBSERVED (BRIDGE)) of these Special Provisions.

The Contractor shall be responsible to notify any utility owners at least three (3) days prior to the removal of any regulated waste which may affect the utility allowing the utility owner time to have a representative on site.

SB-3.5 See the attached "Asbestos and Regulated Waste Assessment Summary" for information on whether or not asbestos or regulated waste was detected in the bridge(s) to be removed or renovated.

The assessment summary included with the Plan or Special Provisions are intended for informational purposes. Quantity, type and analysis of any asbestos or regulated waste containing material are estimates intended as a general guide.

SB-3.6 No measurement will be made of any portion of the asbestos or regulated waste material removal, but the complete removal thereof as specified shall be construed to be included in the single lump sum for which payment is made under Item 2104.601 (Remove Regulated Waste Material (Bridge)).

SB-4 PLANT MIXED ASPHALT PAVEMENT

This work shall consist of bituminous wear surface applied to the deck of box beam bridges when shown in the plans. The mixture shall meet the requirements of Mn/DOT 2360.5H "Asphalt Mixtures Measured by the Square Meter (**Yard**) per Specified (mm) (**inch**) Thickness". Density shall be obtained using 2360.6C the Ordinary Compaction Method. A control strip will not be required. Quantities less than or equal to 272 metric tons (**300 tons**) will be accepted under Mn/DOT Form 2403 or 2415 as defined in the Schedule of Materials Control.

SB-5 (2401) CONCRETE BRIDGE CONSTRUCTION

The provisions of Mn/DOT 2401 are modified and/or supplemented with the following:

Delete the first sentence of the first paragraph of 2401.3G:

Cure newly placed concrete by providing protection against rapid loss of moisture, freezing temperatures, high temperatures, abrupt temperature changes, vibration exceeding a normal or reasonable limit as described in the Bridge Construction Manual chapter .362, shock waves, and prematurely applied loads.

Add the following to the end of the second paragraph of 2401.3G:

All sections not included in superstructures.....45

SB-5.1 Concrete Aggregate for Bridges

The provisions of 2401.2A shall apply except as modified herein:

Delete the second paragraph of 2401.2A and substitute the following therefor:

Class A Coarse Aggregate, as defined in 3137.2B, shall be used in all concrete for bridge superstructures, except that coarse aggregate requirements for precast concrete members fabricated under 2405 shall be as specified in 2461.2D

SB-5.2 Joint Filler and Sealing

The provisions of 2401.3J1 are supplemented as follows:

Prior to installation of sealing materials, concrete curing shall be completed. A minimum of 7 days drying is required prior to application of sealers. Sawcut joints shall be sandblasted, blown clean, and the concrete surfaces shall be dry at the time sealer is installed.

Preformed joint shall be as detailed in the Plans and in conformance with the following requirements.

1. Bituminous felt shall comply with AASHTO M33, modified to the extent that the load required to compress the test specimen to 50 percent of its thickness before test shall be not more than 8274 kPa (**1200 psi**).

2. Cork shall comply with Mn/DOT 3702 and AASHTO M153 Type II.

3. Polystyrene shall comply with the following:

Type	Minimum Compressive Strength (5 percent deflection)	Characteristics
A	207 kPa (**30 psi**)	Closed Cell Expanded Polystyrene
B	69 kPa (**10 psi**)	Molded Polystyrene

Testing for compressive strength of polystyrene shall be in accordance with ASTM D 1621. The Contractor shall, if requested by the Engineer, furnish evidence that the material meets these requirements.

The quantity of preformed cork joint filler material given in the Plans is for the Contractor's convenience only. Any additional joint filler required shall be furnished by the Contractor with no additional compensation.

SB-5.3 Curing Bridge Deck Slab

Delete the first sentence of the 12th paragraph of 2401.3G and substitute the following:

After completion of the tine texturing for bridge deck slab and after free water has disappeared from the surface, the Contractor shall apply a membrane curing compound meeting the requirements of Mn/DOT specification 3754, section B (Requirements for Concrete Pavement Membrane Curing Compound). The curing compound shall be applied with approved power-operated spray equipment. The Contractor shall place the membrane cure material homogeneously to provide a uniform solid white opaque coverage on all exposed concrete surfaces (equal to a white sheet of paper). The membrane cure shall be placed within 30 minutes of concrete placement unless otherwise directed by the Engineer. Failure to comply with this provision will result in a price reduction for the concrete item involved in accordance with Mn/DOT Spec. 1503. The curing compound is not a substitute for the cure specified below, but is required for moisture retention until the conventional wet curing material can be placed. Conventional wet curing shall be applied as soon as the concrete can be walked on with insignificant damage. The deck slab surface shall be kept continuously wet with clean fresh

water for an initial curing period of at least 7 days. The Contractor must provide adequate personnel to ensure that the deck surface is maintained in a wet condition on weekends and/or holidays.

Delete the entire section of 2401.3K.

SB-5.4 Integral Concrete Diaphragms

Place all integral diaphragms to the elevation of the bottom of the bridge slab prior to placing any slab concrete. Use an approved chemical retarder from the "Approved/Qualified Product List for Concrete Products, "Concrete Admixtures A-G" (http://www.dot.state.mn.us/products) in the concrete for integral concrete diaphragms. Adjust the retarder dosage so the integral diaphragm concrete remains in an unhardened state during placement of the entire bridge slab.

SB-6 (2402) STEEL BRIDGE CONSTRUCTION

This work shall be performed in accordance with the provisions of Mn/DOT 2402 except as modified below:

Delete the first paragraph of 2402.3D and substitute the following:

At least six weeks before starting construction of the structural steel erection falsework, the Contractor shall supply the Engineer with three copies of the detailed Plans and Specifications and two copies of the associated calculations of the proposed system for constructing the falsework. Design of the falsework shall be in accordance with AASHTO "Guide Design Specifications for Bridge Temporary Works". The Plans and Specifications shall be prepared by an Engineer, thoroughly checked by a second Engineer for completeness and accuracy, and certified by one of the aforementioned professional Engineers licensed in the State of Minnesota. The documents shall include sufficient details so that construction of the proposed system can be completed solely by reference to the Plans and Specifications. The design criteria shall be shown on the first sheet of the Plans.

Delete the first paragraph of 2402.3F and substitute the following:

Structural steel members shall be erected in a manner that will provide safety to the workers, inspectors, and the public, at all times, as well as reasonable assurance against damage to the steel members. Prior to placement of diaphragms, the primary members, such as beams and girders, shall be temporarily anchored, braced, and stabilized as they are erected so as to preclude sliding, tipping, buckling, or other movement that may otherwise occur.

If active vehicular or railroad traffic will be permitted to travel beneath beams prior to complete erection of all the beams and diaphragms in a span, the Contractor shall submit an erection plan prepared by an engineer, thoroughly checked by a second engineer for completeness and accuracy, and certified by one of the aforementioned professional engineers licensed in the State of Minnesota which details all temporary works necessary to brace and stabilize beams. Struts, bracing, tie cables, and other devices used for temporary restraint shall

be of a size and strength that will ensure their adequacy. Plans shall specify the required bolt tension and number of bolts to be installed in permanent diaphragm connections and in other bracing necessary to stabilize the beams. The Contractor shall arrange the work schedule so that at least two adjacent girders will be erected (including diaphragms and bolts fully tightened) and braced in any one span before operations are suspended for the day.

The last sentence of 2402.3F, paragraph (3), is hereby modified to read as follows:

Connections for primary members, diaphragms, and other secondary members shall have a sufficient number of holes filled with erection pins and bolts so that the plates are drawn into full contact and so that the holes are properly matched prior to placing the permanent connectors.

SB-6.1 Metal Railing

This work shall consist of furnishing, coating, and installing metal railing, including all anchorages and fittings, in accordance with the applicable provisions of 2402, 2433, 2471, 2478, the Plans and the following. The contractor is responsible for communicating all applicable specifications, special provisions and requirements to all subcontractors.

A. Engineer

Engineer, as used herein, when relating to shop fabrication and coatings, shall mean the Departments Bridge Construction and Maintenance Engineer.

B. Materials

All materials shall be in accordance with the Plan details. If not specified, all steel shall comply with 3306, except that pipe and pipe sleeves shall comply with 3362. Threaded rods, bolts, nuts, and washers shall meet 3391 and shall be galvanized in accordance with 3392 or electroplated in accordance with ASTM B 633, Type III, SC 4.

C. Fabrication and Inspection Requirements

All metal railing shall be fabricated in accordance with 2471 and the Plan. The welding code shall be AWS D1.1-Structural Welding Code-Steel. Welding Procedure Specifications (WPSs) shall be submitted to the Engineer, for approval, prior to the start of fabrication.

Prior to fabrication the Contractor shall submit a Quality Control Plan (QCP) and fabrication drawings that are acceptable to the Engineer. Any work started prior to receiving approved drawings WPSs, and a QCP, shall be subject to 1512. The Contractor shall also give the Engineer at least 5 working days notice prior to beginning work so that Quality Assurance (QA) inspection may be provided.

All metal railing will be inspected by the Engineer. The purpose of the inspection(s) is to establish compliance with the Contract Documents. The shop

inspection(s) is not intended to supplement or replace the Contractor's own Quality Control (QC). The Contractor is ultimately responsible for the correction of errors and faulty workmanship or for the replacement of nonconforming materials.

All parts of the fabrication are to be visually inspected and the inspections are to be documented by the Contractor's QC personnel. Any Nondestructive Testing required by the Contract Documents shall be performed and documented by an ASNT-TC-1A Level II qualified inspector.

Parts found to be in nonconformance shall be documented by using a Nonconformance Report form (NCR). The NCR shall describe in detail the fabrication error and the proposed repair procedure(s) in accordance with the QCP. Repair(s) performed shall be subject to the written approval of the Engineer.

D. Coating Requirements

All railing material shall be galvanized in accordance with 3394 after fabrication

Pre-Galvanized Procedure(s):

1. Calibrate dry film thickness gages in accordance with SSPC-PA 2-Measurement of Dry Coating Thickness with Magnetic Gauges.

2. Prepare all fabricated material surfaces by abrasive blast cleaning to a minimum of SSPC-SP 6/NACE No. 3-Commercial Blast Cleaning, prior to galvanizing.

3. Purchase Order(s) shall inform the galvanizer as to which specific items are going to be duplex coated so that they may comply with any additional cleaning required to meet the "Post Galvanizing Procedures", and, as necessary, meet the visual requirements of aesthetic, ornamental products. The galvanizer shall also be informed which materials, to be galvanized, are reactive (e.g. 3309, etc.).

Galvanizing Procedure(s):

1. All metal railing to be galvanized will be processed utilizing a "dry" kettle. The metal railing shall be prefluxed prior to the galvanizing bath using an aqueous tank of zinc chloride/ammonium chloride. The use of a "top flux" blanket on the molten zinc bath will not be permitted.

2. Air cool the metal railing to ambient temperature before handling for shipment and/or storage. Do not quench the metal railing or apply any post-galvanizing treatments.

3. Lumps, projections, globules, or heavy deposits of zinc, which will interfere with the "intended use of the product", will not be permitted. Damage to the galvanized zinc coating resulting in uncoated "black" and/or bare areas,

blisters, flux deposits, and dross inclusions will also be considered unacceptable. Galvanized material that does not meet the requirements of 3394, shall be repaired in accordance with the methods described in ASTM A780. Required repair(s) may be subject to written approval of the Engineer. "Intended use of the product" shall be defined as surface conditions that, when painted, will produce acceptable aesthetic and/or visual qualities.

4. Galvanized metal railing shall be stored in a manner that will prevent the formation of "white-rust" or wet storage painting. "White rust" or staining of the galvanizing is not acceptable. A written repair procedure shall be subject to the approval of the Engineer. All repairs shall be performed at no expense to the owner.

5. The galvanizer shall provide the Engineer with all galvanizing process-related Quality Control documents prior to shipment of the galvanized product. These documents shall include the following: coating material certifications, visual examinations, and coating thickness examinations.

6. The galvanized metal railing shall have a straightness tolerance of 3 mm in 3000 mm (**1/8 inch in 10 ft**), prior to any subsequent paint applications. Any galvanized metal railing not meeting this tolerance shall be straightened.

7. It is the galvanizer's responsibility to provide the Engineer with advanced notification of at least 5 working days of intent to ship so that the Engineer can perform a Quality Assurance audit.

Handling and Shipping of Coated Metal Railing:

All completed, fabricated, and coated metal railing shall be protected during handling, and shipping, to prevent any damage to the coating(s). Coated metal railing shall not be moved or handled until the coating has cured, but in no case sooner than recommended by the coating manufacturer.

Metal railing may be padded to protect it from direct contact with wood, steel, or other packaging materials that could scratch, mar or otherwise damage the final coated railing finish. Softeners may be used in conjunction with high-density foam or other acceptable packaging materials at all points of contact.

Storage of Coated Metal Railings:

All completed coated metal railing shall be stored in accordance with 1606 and the following:

1. All railing shall be clearly tagged/piece marked by the fabricator prior to final storage. Identification markings shall include, as a minimum: individual piece marks, bridge and/or project number(s), fabricator and applicator job numbers. All marking(s) shall not be visible to the public when the railing is in

its installed position. The method of identification shall be included in the fabricators QCP.

2. It is the Contractors responsibility to provide the Engineer with advance notification of at least 5 working days of intent to ship, so that the Engineer can perform a QA audit prior to shipping.

E. Construction Requirements

The steel posts shall be adjusted to obtain the grade and alignment as shown in the Plans by one of the following methods:

1. The steel posts shall be shimmed with steel shims or washers to the proper grade and alignment, not to exceed 6 mm (**1/4 inch**) of shim height. Before attaching the nuts, coat the surface between the base plate and concrete rail with an approved silicone caulk. Tighten the anchor rod nuts (as per section "C"-Anchorages) and neatly smooth the caulk around the perimeter of the railpost base plate.

2. The anchor rods shall have leveling nuts threaded on them and turned down to the base of the anchor rods. The rails shall be installed and the steel posts set to the proper grade and alignment by adjusting the leveling nuts. Install the top nuts and tighten them firmly to the base plate. The space between the base plate and the concrete shall be filled and neatly finished with grout that is approved by the Engineer.

F. Repairs of Coated Steel Railings:

Any damaged coated surfaces, identified through either Quality Control or Quality Assurance inspections as being unacceptable after shipping and handling, shall be subject to the provisions of 1512.

SB-7 **(2405) PRESTRESSED CONCRETE BEAMS**

The provisions of Mn/DOT 2405 are modified and/or supplemented with the following:

Delete the first paragraph of 2405.3M and substitute the following:

Prestressed concrete beams shall be erected in a manner that will provide safety to the workers, inspectors, and the public, at all times, as well as reasonable assurance against damage to the prestressed members. Prior to the placement of diaphragms, the prestressed beams shall be temporarily anchored, braced, and stabilized as they are erected so as to preclude sliding, tipping, buckling, or other movement that may otherwise occur. If active vehicular or railroad traffic will be permitted to travel beneath beams prior to complete erection of all the beams and diaphragms in a span, the Contractor shall submit an erection plan prepared by an engineer, thoroughly checked by a second engineer for completeness and accuracy, and certified by one of the aforementioned professional engineers licensed in the State of Minnesota which

details all temporary works necessary to brace and stabilize beams. Struts, bracing, tie cables, and other devices used for temporary restraint shall be of a size and strength that will ensure their adequacy. The Contractor shall arrange the work schedule so that each beam will be connected to an adjacent beam and at least two adjacent girders will be erected (including diaphragms and bolts fully tightened) and braced and stabilized in any one span before operations are suspended for the day.

SB-7.1 Prestressed Concrete Fabricator Certification

The Fabricator's quality control office shall maintain documentation containing the data required by the specifications and the State Materials Engineer. This documentation shall contain test data and measurements taken at times and locations approved by the Engineer, assuring that monitoring, by personnel not directly involved in production, is sufficient to ensure compliance with approved procedures.

If the Engineer's review of fabrication work discloses that approved procedures are not being followed, the Fabricator shall immediately correct the procedure.

The Engineer will determine what additional testing work must be done by the Fabricator or, if necessary, what part of the work must be repaired or replaced if fabrication work is not properly monitored and documented by the Fabricator.

Any and all costs of required additional monitoring and testing shall be at the expense of the Contractor with no additional compensation.

SB-7.2 Steel Intermediate Diaphragms

In lieu of providing the steel intermediate diaphragm shown in detail B403 of the plans, the Contractor may substitute a bent plate diaphragm. The bent plate diaphragm shall be made of 8 mm (**5/16"**) thickness plate bent as shown in detail B402 of Mn/DOT Bridge Details Manual. The minimum depth for diaphragm shall be dimension "C" shown in B403; minimum flange width shall be 125 mm (**5"**).

SB-7.3 Concrete Finish of Exterior Beams

Delete the eighth paragraph of 2405.3M and substitute the following:

A special surface finish on the outer surface of the exterior beams is not required on this bridge

SB-7.4 Prestress Transfer

Monitor the ends of the rectangular prestressed concrete beam during the strand release process. If during the release of the individual prestressing strands cracks occur in the ends of the beam the following release sequence will be required.

Delete the first sentence of the second paragraph of 2405.3H.

Add the following to 2405.3H:

Conduct prestress transfer in a sequential and alternating manner symmetrical to the vertical axis of the beam in order to minimize the lateral eccentricity of the prestress forces and diminish cracking of the concrete. Release individual prestressing strands in the following sequence:

Beginning with the bottom row of strands, proceed to the outermost strands in this row and release one strand each side of center. Move up one row, to the outermost strands in this row and release one strand each side of center. Move to the top row at the top of the beam, to the outermost strands and release one strand each side of center. Move to the second row from the top of the beam to the outermost strands and release one strand each side of center. Proceed to the bottom row of strands at the bottom of the beam, 3 columns from the vertical axis, and release one strand each side of center. Move up one row in the same column and release one strand each side of center. Then proceed to the innermost strands in the bottom row and release one strand each side of center. Move up one row and release the same strands. Proceed to the innermost strands in the top row at the top of the beam and release one strand each side of center. Proceed to the bottom row, 1 column in from the outmost strands and release one strand each side of center. Move up one row and release the same strands. Proceed to the bottom row, 2 columns out from the vertical axis of the beam and release one strand each side of center. Move up one row and release the same strands.

Once release has started, all strands of that beam shall be released in the sequence described above even if cracking is noticed near the end of the beam. Notify the Engineer immediately of any cracking and no other beams with the same strand pattern may be fabricated until the Engineer has approved a revised release sequence.

SB-7.5 Prestressed Concrete Box Beams

A. Description

This special provision describes fabricating, furnishing, transporting, and placing grout between box beams and grout in post tensioning ducts of box type prestressed beams, in accordance with sections 2401 and 2405 of the standard specifications, as directed by the engineer, and as hereinafter provided.

B. Materials

1. Concrete for box beams
Concrete for the box beams shall be in accordance with sections 2401 and 2405, mix 3W36, except that the concrete shall be air entrained at 8% ±1.5%. To reduce permeability the concrete mix, it is also required to contain fly ash with the amount of Portland cement replaced with fly ash shall be in a range of 20 to 25 percent. Modifications to mix design 3W36 will be required to obtain the air entrainment and fly ash requirements and to meet the design strength specified in the plans. A modified mix design shall be submitted to the engineer for approval.

2. Grout between the Post-tensioned Beams and in the Anchor Dowel holes
Use one of the following mixes, proportioned by weight for the grout between the post-tensioned beams:

Mix 1

Component	Quantity (pounds per cubic yard)
Type 1 Portland Cement	468
Type N Masonry Cement	349
Fine Aggregate	1991
Net Water (approx.)	415

Mix 2

Component	Quantity (pounds per cubic yard)
Type 1 Portland Cement	930
Fine Aggregate	1966
Net Water (approx.)	415

Provide an entrained air content in the mix of 14% +/- 4% by using masonry cement or a department-approved air entraining admixture.

Add water if necessary, to obtain a consistency that ensures that the space between beams is completely filled.

3. Grout in the Post-tensioned Ducts
Use a grout composition of 94 pounds of Type 1 cement, 5 gallons of water and 1 pound of approved plasticizer or a pre-mixed packaged grout that is approved by the engineer, in the post-tensioned ducts.

4. Grout in the Stress Pockets
Proportion by weight the cement, fine aggregate, and non-shrink admixture for the grout in the stress pockets, as indicated in the following table. Use Type 1 cement. Add water as necessary to obtain a 3-inch maximum slump. Furnish a metallic aggregate non-shrink admixture such as Embeco, Ferrolith-G, Groutex, Iso-Vol., Vibrofoil, or equal.

Cement	**Fine Aggregate**	**Non-Shrink Admixture**
188 lbs	300 lbs	100 lbs

The following non-chloride, pre-mixed commercial non-shrink grouts, placed according to the manufacturer's instructions, may be used in the stress pockets in lieu of the cement grout above. Limit slump to a 3-inch maximum.

Product	**Source**
SET Non-Shrink Grout, Cleveland, OH	Master Builders
Sonogrout, Sonneborn Building Prod. Div., Minneapolis, MN	Sonneborn-Contech
Five Star 400 Grout, Old Greenwich, CT	U.S. Grout Corporation
Sure-Grip Grout, Oregon, IL	Dayton-Superior

C. Construction

The grout is to be placed between the beams and cured for a minimum of 48 hours before the post tensioning of the transverse tendons can begin. No moving vehicle

loads will be permitted on the bridge beams during the grouting or curing of the grout between the beams and until the tendons have been post tensioned. The concrete end diaphragm shall not be placed until the beams have been post tensioned.

The grout between the post-tensioned beams shall be compacted with a rod during placement of the grout to ensure that the voids are completely filled.

Pressure grout the post-tensioned ducts from one grout pipe until all entrapped air is expelled and grout begins to flow from the open grout pipe. Close the open grout pipe and maintain a pressure of 50 psi for 15 seconds.

The stress pockets at the ends of the tendons shall be grouted after post tensioning. A bonding agent shall be used to prepare the surface. The grout shall fill the pocket and be finished flush with the face of the beam.

D. Measurement

No direct measurement will be made of this item. Material and labor for post tensioning and grouting is incidental to other items.

SB-8 **(2433) STRUCTURE RENOVATION**

The provisions of Mn/DOT 2433 are modified and/or supplemented with the following:

SB-8.1 Removal of Existing Steel Members

The provisions of 2433 are modified and/or supplemented with the following:

All lead paint that has been identified as peeling must be stabilized by coating with a paint or similar material that will prevent the peeling paint from flaking during demolition, or must be scraped. This must all be completed as per the Mn/DOT Asbestos and Regulated Waste Manual for Structure Demolition or Relocations for Construction Projects.

SB-9 **(2442) REMOVAL OF EXISTING BRIDGES**

The provisions of Mn/DOT Specification 2442 shall apply except as supplemented herein.

Disposal of materials by the Contractor shall be in accordance with 1506, 2104.3C, 2442, Mn/DOT "Asbestos and Regulated Waste Manual for Structure Demolition or Relocations for Construction Projects" and the following: The Contractor shall furnish written information to the Engineer as to disposal of steel bridge beams and other steel bridge components coated with lead paint. This information shall include method of stabilization and disposal; name, address, and telephone number of disposal site; certification that Contractor has notified disposal site of presence of lead paint; acknowledgment by Contractor of OSHA

requirements relating to lead; and certification that Contractor is familiar with proper handling and disposal of materials with lead-based paint systems. All lead paint that has been identified as peeling must be stabilized by coating with a paint or similar material that will prevent the peeling paint from flaking during demolition, or must be scraped. This must all be completed as per the Mn/DOT "Asbestos and Regulated Waste Manual for Structure Demolition or Relocations for Construction Projects". The form supplied in this special provision shall consist of the signature of the authorized Superintendent verifying that the information is correct.

NOTIFICATION FORM ON DISPOSAL OF BRIDGE STEEL

The Contractor is required to provide certain information on disposal of bridge steel which has been painted with lead-based paint. By signing this document, the Contractor certifies that information supplied by the Contractor is correct and that the Contractor is familiar with proper handling and disposal of materials with lead-based paint. This information must be furnished to the Project Engineer a minimum of 30 days prior to removal of the bridge steel from the project site. Any change in method or location of disposal would require resubmittal and a 30 day notice.

Mn/DOT Project No._____ **Bridge No.**_____

Description of Bridge Steel _____

Paint System is Mn/DOT Spec. _____ , _____
(Primer) **(Top Coat)**

Project Engineer: _____

Contractor/Subcontractor: _____
(Name, mailing address, telephone no.)

_____

I _____ certify that the following information is correct:
(print name of authorized representative)

The above bridge steel will be disposed of by the following method(s): _____
(list name,

_____
address and telephone no. of recipient, estimated delivery date, and intended use.)

_____

_____

I also certify that _____ is familiar with
(Contractor/Subcontractor name)
the requirements in OSHA 29 CFR 1926.62 relating to lead, precautions to be taken when working with lead, and proper handling and disposal of materials with lead-based paint systems and that _____ has been notified of the presence of lead-based paint.
(name of recipient)

_____ _____
(signature) **(date)**

Received by Project Engineer/Inspector: _____ _____
(date) **(signature)**

cc: Project File
Office of Environmental Services

SB-10 (2451) STRUCTURE EXCAVATIONS AND BACKFILLS

The provisions of Mn/DOT 2451 are modified and/or supplemented with the following:

SB-10.1 Structure Excavation

The item Structure Excavation shall include all excavation, sheeting and shoring and/or other protection, preparation of foundation, and placing of backfill necessary for construction which is not specifically included in the grading portion of the Contract. It shall also include the disposal of surplus material.

No measurement will be made of the excavated or backfill material. All work performed as specified above will be considered to be included in a single lump sum for which payment is made under Item No. 2401.601, "STRUCTURE EXCAVATION".

For purposes of partial payments, the portion of the lump sum Structure Excavation at each substructure unit will be defined as follows:

Each Abutment 50%

SB-11 (2452) PILING

The provisions of Mn/DOT 2452 are modified and/or supplemented with the following:

Delete the second paragraph of 2452.3H and substitute the following:

Pile welders shall be qualified using AWS D1.1 standards or current Mn/DOT welding certification.

SB-11.1 Equipment for Driving

Delete the first and second paragraph of 2452.3C1 and substitute the following:

All pile driving equipment to be furnished by the Contractor shall be subject to approval by the Engineer. Approval is based on the satisfactory results of a wave equation analysis.

At least 30 calendar days prior to the start of pile driving operations, the Contractor shall submit the following:

1. A completed pile and driving equipment data form for each hammer proposed for the project. The form may be downloaded from the following website: http://www.pile.com/pdi/users/grlweap/equipdatafrm-en.pdf

2. A wave equation analysis in accordance with GRL WEAP or similar program for each pile type and hammer. A hard copy of the results of the analysis,

including a WEAP bearing graph, shall be submitted to the Engineer.

For the pile driving equipment to be acceptable, the required number of hammer blows indicated by the wave equation at 155% of the pile factored design load as shown in the Plans shall be between 30 and 180 blows per foot.

The pile stresses indicated by the wave equation shall be reviewed to determine that the piles can be driven as described in 2452.3D without failure. If stress levels are such that damage to the piling is considered to be likely, adjustments shall be made to the pile driving system or to the strength of the pile until satisfactory results are obtained. Substantial refusal is defined in subsequent paragraphs.

All costs associated with providing the wave equation analysis and submittals as described above shall be an incidental expense to the test piles and no additional compensation will be made for this work.

SB-11.2 Penetration and Bearing

Delete 2452.3E and substitute the following:

A. General

The nominal pile bearing resistances shown in the Plans were calculated using design loadings and indicate the factored loads that the piles are required to support. The nominal resistance determined using the dynamic methods, defined under Determination of Nominal Bearing Resistances, is the basis for establishing the minimum criteria for pile acceptance in which the driving resistance is not less than the resistance specified in the Plans. It may be necessary to drive the foundation piles beyond the specified resistance until the required penetration as shown in the Plan is reached, or until the piles have been driven to a penetration as determined by the engineer based on the test pile results.

Since the purpose of a test pile is to provide information for authorizing the length of the foundation piles, it shall be driven full length unless substantial refusal (as defined below) is encountered at a lesser penetration. If the test pile has been driven full length and 115% of the nominal resistance required for the foundation piles has not been attained the Engineer may order the test pile be driven further as per 2452.3D2 and 2452.4A. If pile redriving is specified in the Plan, the penetrations and time delays shall be in accordance with 2452.3D7 and/or these special provisions.

Substantial refusal, as referenced in 2452.3D, shall be considered to have been attained when the penetration rate is equal to 0.05 inches per blow.

B. Determination of Nominal Bearing Resistance

The required nominal resistance shown in the Plans is based on a field control method as noted. The driven pile nominal resistance shall be determined in accordance with the following provisions using the appropriate corresponding field control method indicated in the Plans. Unless otherwise specified, if more than one field control method

is shown, the method used shall be determined in accordance with the following:

- When the "Pile Analysis" pay item is included for a bridge, the Pile Driving Analyzer (PDA) shall be required for the field control.

- When the "Pile Analysis" pay item is <u>not</u> included for a bridge, the field control method shall be at the Contractor's option. The cost of the PDA shall be incidental to the cost of Piling Driven.

B1. Mn/DOT Nominal Resistance Pile Driving Formula Used as Field Control Method

The nominal pile bearing resistance shall be determined by dynamic formula as follows:

All types of piling driven with power-driven hammers.

$$R_n(\,metric\,) = \frac{867E}{S+5} x \frac{W+(CxM)}{W+M} \qquad R_n(\,english\,) = \frac{10.5E}{S+0.2} x \frac{W+(CxM)}{W+M}$$

WHERE:

R_n	=	Nominal Pile Bearing Resistance in Newtons (**pounds**).
W	=	Mass of the striking part of the hammer in kilograms (**pounds**).
H	=	Height of fall in millimeters (**feet**).
S	=	Average penetration in millimeters (**inches**) per blow for the last 10 or 20 blows, except in cases where the pile may be damaged by this number of blows.
M	=	Total mass of pile plus mass of the driving cap in kilograms (**pounds**).
C	=	0.1 for Timber, Concrete and shell type piles, 0.2 for Steel H piling

*The following definition is for Metric units. See English units below:

E = WHx0.00981 for single acting power-driven hammers. It is equal to the joules or newton-meters (joule = newton-meter) of energy per blow for each full stroke of either single acting or double acting hammers as given by the manufacturer's rating for the speed at which the hammer operates.

*The following definition is for English units:

E = WH for single acting power-driven hammers. It is equal to the foot pounds of energy per blow for each full stroke of either single acting or double acting hammers as given by the manufacturer's rating for the speed at which the hammer operates.

NOTES:

When provisions are not made available for field determination of the energy output on a power-driven hammer, such as measurement of the drop for single-acting hammers, or such as pressure gauges or determination of energy on the basis of the frequency of the blows (cycles per minute) for double-acting hammers, the manufacturer's rated energy shall be reduced by 25 percent. This reduction is not intended to apply when determining the required hammer size. Double-acting hammers, for the purpose of these requirements, will include all hammers for which a power source is utilized for acceleration of the down-stroke of the ram. The dynamic formula specified herein-before are applicable only when:

(a) The hammer has a free fall.
(b) The head of the pile is free from broomed or crushed fibre.
(c) The penetration of the pile is at a reasonably uniform rate.
(d) There is not noticeable bounce after the blow. When there is a noticeable bounce, twice the bounce height shall be deducted from H to determine the value of H in the formula.

B2. Pile Driving Analyzer (PDA) Used as Field Control Method

The nominal pile bearing resistance shall be determined using the pile driving analyzer and the Case Pile Wave Analysis Program (CAPWAP) in accordance with the following section, Dynamic Monitoring of Pile Driving. The WEAP bearing graph listed below under deliverables shall be used to determine the bearing resistances that are recorded on the pile driving report (attach a copy of the bearing graph to the report). For informational and comparison purposes, the bearing resistances shall also be computed using the Mn/DOT formula and recorded on the report.

B3. Piling Supporting Concrete Retaining Walls

The nominal pile bearing resistances shown on Mn/DOT Standard Concrete Retaining Wall Sheets (Mn/DOT Standard Figures 5-297.620 through 5-297.632 dated May 31, 2006) were calculated using the Allowable Stress Design (ASD) Method, Not the LRFD method. If dynamic formulas are used to determine pile resistance for concrete retaining walls in the field, follow Mn/DOT specification 2452.3E as detailed in the 2005 Standard Specifications for Construction in lieu of 2452.3E-A and 2452.3E-B1 shown above. Do not use the formulas shown above to compute pile capacities for concrete retaining walls. For retaining wall plan sheets dated later than May 31, 2006 the inspector must confirm which dynamic formula to use.

SB-11.3 Dynamic Monitoring of Pile Driving

A. Description of Work

The Contractor shall provide all equipment and personnel necessary to perform dynamic pile testing of driven piles using a Pile Driving Analyzer (PDA). The work shall be performed in accordance with the requirements of ASTM 4945. The dynamic pile testing shall be performed on the initial driving and redriving of the test piles as directed by the Engineer. Testing may also be required on additional piles as designated by the Engineer.

B. Pile Preparation and Wave Matching

The Contractor shall prepare each pile to be tested by attaching instrumentation to the piles except that for testing on initial driving of steel shell piles, the Contractor shall attach the instrumentation after the pile has been placed in the leads. In addition, the Contractor shall perform wave matching of the PDA data using the Case Pile Wave Analysis Program (CAPWAP). This work shall be performed by an engineer experienced in dynamic testing and CAPWAP analysis. The program shall be run on all piles dynamically tested, or as directed by the Engineer.

C. Wave Equation Analysis

Following the wave matching, the Contractor shall use the GRLWEAP program and CAPWAP data to produce a refined Wave Equation Analysis Program (WEAP) bearing graph and inspector's chart to be used as the basis for pile acceptance. The bearing graph shall be used to determine the foundation pile's nominal bearing resistance that is to be recorded on the pile driving report. The wave matching analysis and wave equation analysis shall be performed in a timely manner.

D. Deliverables

The Contractor shall provide the following items to the Engineer within the specified time intervals described herein:

1. Results from each dynamic test performed with the PDA and checked with the CAPWAP program. The results shall be in the form of a hard copy of columnar data produced with the PDAPLOT program. The data shall consist of blow counts, stresses in the pile, pile capacities, hammer energies and hammer strokes for each one foot (0.25 meter) depth increment. The results shall be provided in a timely manner. In addition, the Contractor shall provide expert advice regarding the analysis of the PDA and CAPWAP data.

2. A WEAP bearing graph and inspection chart showing blow count-versus-pile resistance and stroke-versus-blow count that will be used for determining the nominal bearing resistance of the foundation piles. The graph/charts shall be developed based on the results of the PDA and CAPWAP data. Both the maximum force and maximum transferred energy calculated by WEAP shall match within 10% of those calculated by the CAPWAP. The bearing graphs shall be delivered to the Engineer within two days after completion of driving the test piles at any single substructure unit. These graphs/charts shall also be documented in the appropriate reports listed below.

3. A brief report for the piles at each substructure tested including a summary of the PDA and CAPWAP results. In addition, the Contractor shall supply one or more 3.5 inch diskettes or CD containing all data for the piles tested for that substructure. The data shall be in the form of X01 (PDA file) and Q00 (PDAPLOT file) files and shall be properly labeled. These reports shall be sent to the Engineer no later than three working days after dynamic pile tests have been completed at any given substructure unit.

4. A PDA summary report which summarizes the findings from the PDA and the associated CAPWAP computer program and the developed GRLWEAP bearing graphs. This report shall be sent to the Engineer no later than one week following the completion of the dynamic pile tests, addressed separately.

E. Method of Measurement

When the Pile Driving Analyzer field control method is required by the contract, measurement will be by the number of piles on which the pile driving analysis is performed. Initial analysis and redrive analysis on an individual pile shall be counted as one pile analysis. The Department reserves the right to increase or decrease the number of piles which are required to be dynamically monitored.

When the Pile Driving Analyzer field control method is not required by the contract but is chosen at the Contractor's option, no measurement will be made of the analyses performed and all costs associated with the dynamic testing will be at the Contractor's expense.

SB-11.4 Pile Points

This work consists of furnishing pile points for cast-in-place concrete piles in lieu of flat driving shoes and shall be performed in accordance with the following:

The first paragraph of 2452.3D6 shall not apply to piles equipped with conical pile points.

The bottom of each shell shall be equipped with a commercially manufactured conical pile point of cast steel, which shall be attached to the pile in accordance with the manufacturer's recommendations and made watertight by welding.

The pile point shall be approved by the Engineer prior to attachment to the pile.

Pile points are required at the abutment piles.

Payment for pile points will be by the number of authorized piles, including test piles, with their tips protected.

Payment will be made under Item 2452.602 "PILE POINTS 12 INCH", at the Contract price per each, which shall be compensation in full for all costs of furnishing the points and attaching them to the piles.

SB-11.5 Extensions and Splices

Delete the fourth paragraph of 2452.3H and substitute the following:

Commercial drive fit splices may be permitted on a performance basis, subject to approval of the Engineer. However, such splices shall not be used in pile bent type piers or abutments, or where foundation soils are soft or unstable, or in foundations where uplift is anticipated (concrete seals), or where down drag is indicated in the pile load table, or within 3 m (**10 feet**) of the pile cut-off.

SB-12 (2461) STRUCTURAL CONCRETE

The provisions of 2461 shall apply except as modified herein.

Add the following to Item (c) in the fourth paragraph of 2461.3B2:

The minimum cementitious content for bridge deck concrete shall be 362 kg per m^3 (**611 pounds per yd^3**).

SB-13 (2471) STRUCTURAL METALS

The provisions of Mn/DOT 2471 are modified and/or supplemented with the following:

Delete the fourth paragraph of 2471.3A2 and substitute the following:

The Contractor/Fabricator performing coating application must demonstrate qualification by obtaining the AISC Sophisticated Paint Endorsement (SPE), the SSPS QP Certification, or a Quality Control Plan (QCP) that is acceptable to the Engineer.

Add the following to the end of the second paragraph of 2471.3C:

The Engineer will audit suppliers with approved QCP's on a biannual or annual basis or as deemed necessary by the Engineer to determine if the QCP is being implemented. The Department will invoke its Corrective Action Process if the audit indicates non-

conformance. Corrective action, up to and including the supplier hiring a third party Quality Control Inspector, may be required as a disciplinary step, at no cost to the Department. A copy of the Departments Corrective Action Process is available from the Engineer.

Add the following to 2471.3E1 as the first paragraph:

Steel plates and splice plates for major structural components shall be cut and fabricated so that the primary direction of rolling is parallel to the direction of the main tensile or compressive stresses.

Add the following to 2471.3F:

F1b Web-to-Flange Welds

For the purpose of this specification, a repair is defined as any area of the welded product not in compliance with the current edition of AASHTO AWS D1.5 Bridge Welding Code. Limit each individual web-to-flange weld repairs to 2 percent of the weld length and grinding web-to-flange weld repairs to 5 percent of the weld length. Exceeding these limits will result in revocation of the Welding Procedure Specification (WPS) used to perform the initial production welding.

Add the following as 2471.3G1:

G1 Fracture Critical Welder Qualifications

Fracture Critical Welder Qualifications shall be in accordance with AASHTO/AWS D1.5-Bridge Welding Code. Annual requalification shall be based upon acceptable radiographic test results of either a production groove weld or test plate. If a welder is requalified by test, a WPS written in accordance with the requirements of D1.5, shall be used and the test plate shall be as shown in Figure 5.24. The WPS shall be included in the Fabricators QCP.

Add the following to 2471.3N1:

Work that is not performed in accordance with the suppliers approved QCP shall be subject to rejection in accordance with 1512.

SB-14 (3371) STEEL SHELLS FOR CONCRETE PILING

The provisions of Mn/DOT 3371.2 are modified and/or supplemented with the following:

Add the following to 3371.3:

The use of small quantities of piling from the Contractor's surplus of cut-offs and overruns may be submitted for use and approved by the Engineer. These materials shall be certified by the Contractor to be remaining quantities of materials previously submitted with accompanying Mill Test Reports and subsequently approved for use on other projects. Pile splices used to make up authorized pile lengths shall be considered to have been made at the

Contractor's convenience and shall not be considered eligible for extra compensation under 2452.4B.

SB-15 **(3391) FASTENERS**

Delete the contents of 3391.2B and substitute the following:

Bolts shall meet ASTM A 325, Type 1 (for painted applications) or Type 3 (for unpainted weathering steel applications). Bolts shall have sufficient grip length to expose one thread beyond outside nut surface. ASTM A 325 bolts may be retightened once after having been fully tightened. Bolts larger than those defined by ASTM A 325 shall meet ASTM A 354, Grade BC.

Nuts shall meet ASTM A 563. Nuts shall be heavy hex and meet either Grade C or DH (for painted applications) and either Grade C3 or DH3 (for unpainted weathering steel applications).

Washers shall be hardened steel and shall meet ASTM F 436, Type 1 (for painted applications) or Type 3 (for unpainted weathering steel applications).

Bolts, Nuts, and Washers which are completely installed before application of the prime coat shall be uncoated "black" bolts and shall receive the same paint coatings as the structural steel. Fasteners which are field installed after the application of the prime coat to the structural steel shall be supplied mechanically galvanized according to ASTM B 695 Class 50 requirements.

At the time of installation of fasteners, all nuts, regardless of their specified finish, shall be lubricated with a lubricant of contrasting color as per ASTM A 563 Supplementary requirements S1, S2, and S3.

SB- Delete the first two sentences of 3391.2E and add the following:

Stainless steel bolts are to meet the requirements of ASTM F 593, Condition CW1, Type 304, 316, or 316L, with a minimum yield strength of 415 MPa (**60,000 psi**), an ultimate tensile strength of 660 MPa (**95,000 psi**), and a minimum elongation of 20 percent in 50 mm (**2 inches**). The nuts are to meet the requirements of ASTM F 594, Condition CW1, Type 304, 316, or 316L.

SB-16 **(3741) ELASTOMERIC BEARING PADS**

The provisions of 3741 shall apply except as modified below:

Replace the first sentence in 3741.2A with the following:

The elastomeric portion of the bearing pads shall be in accordance with AASHTO M251-04 with a specified Shore A scale hardness of 60 ±5 durometers. The elastomer compounds shall be classified as of low-temperature Grade 4 as specified by the grade

CVT

Chosen Valley Testing

Design Phase Geotechnical Evaluation:

Replace Bridge 90559
CR 164 over Big Cobb River
Medo Township, Blue Earth County, Minnesota

Prepared for:

Mr. Al Forsberg, PE
Blue Earth County Public Works

April 23, 2009
MNM09.1060B

1410 7th Street NW
Rochester MN 55901
507-281-0968
Fax: 507-289-2523

135 Buchner Place
La Crosse, WI 54603
608-782-5505
Fax: 608-785-2818

31 1st Ave. S
Rice, MN 56367
320-393-3306
Fax: 320-393-3309

1402 -1/2 N 2nd St.
Mankato, MN 56001
507-389-9180
Fax: 507-389-9180

550 Hwy. 18 E
Clear Lake, IA 50428
641-420-3680
Fax: 507-289-2523

Boring Location Sketch

Replace Bridge 90559
Blue Earth Co., Minnesota

Legend

Boring Locations

N

0 50 100 200 Feet

MINNESOTA DEPARTMENT OF TRANSPORTATION - GEOTECHNICAL SECTION

LABORATORY LOG & TEST RESULTS - SUBSURFACE EXPLORATION

UNIQUE NUMBER

U.S. Customary Units

State Project	Bridge No. or Job Desc.	Trunk Highway/Location	Boring No.	Ground Elevation
	Ex. Br. 90559	**County Road 164**	**B-01**	**1005.9** (Surveyed)

Location: Blue Earth Co. Coordinate: X=600288 Y=139874 (ft.)

Latitude (North)= Longitude (West)=

No Station-Offset Information Available

Drill Machine **CME 75** | Hammer **CME Automatic** | SHEET 1 of 2 | Drilling Completed **3/16/09**

DEPTH	Depth / Elev.	Lithology	Classification	Drilling Operation	SPT N_{60} / REC (%)	MC (%) / RQD (%)	COH (psf) / ACL (ft)	γ (pcf) / Core Breaks	Soil / Rock	Other Tests Or Remarks / Formation or Member
	1.0 1004.9		**AGGREGATE BASE**							Elevations provided by Blue Earth County
5			**CLAY LOAM** with roots, with layers of sandy clay loam, dark brown to black, moist. (Fill)		19 11					
	6.5 999.4		**SAND** fine to medium grained, with gravel, trace silt, brown, moist		12					
	9.0 996.9		(Fill)							
10			**CLAY LOAM** trace gravel, light brown to brown, moist, rather stiff. (Glacial Till/Possible Fill)		13					
	12.5 993.4				19					PP = 1.75 tsf
15					10					PP = 1.25 tsf
			1' clay layer around 18 feet		7					PP = 1.0 tsf
20					5					PP = 1.0 tsf
▼					9					Water at about 22 feet after last sample.
25			**CLAY LOAM** trace gravel, gray, wet, medium to very stiff. (Glacial Till)		7					PP = 1.0 tsf PP = 1.5 tsf
					7					PP = 2.25 tsf
30					11					PP = 2.0 tsf
35					11					PP = 4.0 tsf
	38.0 967.9									
40			**SAND** fine to medium grained, trace gravel, gray, water bearing, very loose. (Glacial Outwash)		4					Water at about 40 feet during drilling.
	43.0 962.9									
45					94					PP > 4.5 tsf
			CLAY LOAM trace gravel, trace sand seams, gray, moist, very stiff to hard. (Glacial Till)							
50					81					PP > 4.5 tsf

Index Sheet Code 3.0

(Continued Next Page)

Soil Class: Rock Class: Edit: Date: 4/23/09

P:\GINT PROJECTS\MNDOT1060B.GPJ

MINNESOTA DEPARTMENT OF TRANSPORTATION - GEOTECHNICAL SECTION

LABORATORY LOG & TEST RESULTS - SUBSURFACE EXPLORATION

UNIQUE NUMBER

U.S. Customary Units

Mn/DOT GEOTECHNICAL SECTION - LOG & TEST RESULTS — *SHEET 2 of 2*

State Project	Bridge No. or Job Desc.	Trunk Highway/Location	Boring No.	Ground Elevation
	Ex. Br. 90559	**County Road 164**	**B-01**	**1005.9**(Surveyed)

DEPTH	Depth / Elev.	Lithology	Classification	Drilling Operation	SPT N_{60} / REC (%)	MC (%) / RQD (%)	COH (psf) / ACL (ft)	γ (pcf) / Core Breaks	Soil / Rock	Other Tests Or Remarks / Formation or Member
55			**CLAY LOAM** trace gravel, trace sand seams, gray, moist, very stiff to hard. (Glacial Till) *(continued)*		24					PP = 3.75 tsf
	58.0 947.9									
60					44					
65					50/.4					
			SAND with gravel, trace silt, medium to coarse grained, brown, water bearing, dense to 67 1/2 feet, then becoming medium dense. (Alluvium)							
70					19					
75					22					
80	80.0 925.9		**CLAY LOAM** grades to sandy clay loam, gray, wet, very stiff. (Glacial Till/Glacial Fluvium)		25					PP = 2.0 tsf
	83.0 922.9									
85					81					
90			**SAND** trace gravel, fine to medium grained, brown, water bearing, medium dense to very dense. (Glacial Outwash)		28					
95					26					
100	101.0 904.9		Bottom of Hole - 101 ft.		31					

Water measured at 40 ft while sampling and/or drilling

Water measured at 22 after completion of drilling operations

Soil Class: Rock Class: Edit: Date: 4/23/09

P:\GINT PROJECTS\MNDOT1060B.GPJ

MINNESOTA DEPARTMENT OF TRANSPORTATION - GEOTECHNICAL SECTION

LABORATORY LOG & TEST RESULTS - SUBSURFACE EXPLORATION

UNIQUE NUMBER

U.S. Customary Units

State Project	Bridge No. or Job Desc.	Trunk Highway/Location	Boring No.	Ground Elevation
	Ex. Br. 90559	**County Road 164**	**B-02**	**1005.2** *(Surveyed)*

Location: Blue Earth Co. Coordinate: X=600432 Y=139831 (ft.)

Latitude (North)= Longitude (West)=

No Station-Offset Information Available

Drill Machine **CME 75** | Hammer **CME Automatic** | SHEET 1 of 2 | Drilling Completed **3/17/09**

DEPTH	Depth / Elev.	Lithology	Classification	Drilling Operation	SPT N_{60} (%) REC	MC (%) RQD	COH (psf) ACL	γ (pcf) Core Breaks	Soil / Rock	Other Tests Or Remarks / Formation or Member
	1.0 / 1004.2		**AGGREGATE BASE**							
5			**CLAY LOAM** with roots, with layers of sandy clay loam, dark brown to black, moist, frozen to 6 feet. (Fill)		36 / 30					
	9.0 / 996.2		**SANDY LOAM** grades to sandy clay loam, fine grained, dark brown, wet, loose (Alluvium)		11 / 7					
10	11.5 / 993.7		**CLAY LOAM** trace gravel, brown, moist to wet, rather stiff. (Glacial Till)		10					PP = 2.0 tsf
15	16.5 / 988.7				12					PP = 2.0 tsf
			CLAY LOAM trace gravel, with 2" clay layers and seams of sand, gray, wet, medium. (Glacial Till)		8					PP = 2.0 tsf
20	▼				8					PP = 1.0 tsf
	24.0 / 981.2				6					Water at about 22 feet during drilling. PP = 1.5 tsf
25					9					
					9					
30			**SANDY LOAM to SANDY CLAY LOAM** gradational transitions, with clay loam layers, trace gravel, fine to medium grained, gray, very wet, loose. (Glacial Till/Glacial Fluvium)		10					
35					8					PP = 1.5 tsf
	38.0 / 967.2									
40					24					
			CLAY LOAM with seams to 4" layers of sand, trace gravel, gray, wet, stiff to hard. (Glacial Till)		32					PP = 2.25 tsf
45										
50					15					PP = 1.0 tsf

Index Sheet Code 3.0 (Continued Next Page)

Soil Class: Rock Class: Edit: Date: 4/23/09

P:\GINT PROJECTS\MNDOT1060B.GPJ

MINNESOTA DEPARTMENT OF TRANSPORTATION - GEOTECHNICAL SECTION

LABORATORY LOG & TEST RESULTS - SUBSURFACE EXPLORATION

UNIQUE NUMBER

U.S. Customary Units

Mn/DOT GEOTECHNICAL SECTION - LOG & TEST RESULTS — *SHEET 2 of 2*

State Project	Bridge No. or Job Desc.	Trunk Highway/Location	Boring No.	Ground Elevation
	Ex. Br. 90559	**County Road 164**	**B-02**	**1005.2** *(Surveyed)*

DEPTH	Depth / Elev.	Lithology	Classification	Drilling Operation	SPT N_{60} / REC (%)	MC (%) / RQD (%)	COH (psf) / ACL (ft)	γ (pcf) / Core Breaks	Soil / Rock	Other Tests Or Remarks / Formation or Member
55			**CLAY LOAM** with seams to 4" layers of sand, trace gravel, gray, wet, stiff to hard. (Glacial Till) *(continued)*		18					PP = 1.75 tsf
	58.0 947.2									
60			**SAND** with gravel, coarse grained, brown, water bearing, medium dense. (Glacial Outwash)		17					
	63.0 942.2									
65					18					
70					17					
75					25					
80			**SAND** fine to medium grained, brown, water bearing, medium dense. (Glacial Outwash)		20					
85					21					
90					22					
95					18					
100	101.0 904.2		Bottom of Hole - 101 ft. Water measured at 22 ft while sampling and/or drilling		19					

Soil Class: Rock Class: Edit: Date: 4/23/09

P:\GINT PROJECTS\MNDOT1060B.GPJ

UNIFIED SOIL CLASSIFICATION (ASTM D-2487/2488)

MATERIAL TYPES	CRITERIA FOR ASSIGNING SOIL GROUP NAMES			GROUP SYMBOL	SOIL GROUP NAMES & LEGEND
COARSE-GRAINED SOILS >50% RETAINED ON NO. 200 SIEVE	GRAVELS >50% OF COARSE FRACTION RETAINED ON NO 4. SIEVE	CLEAN GRAVELS <5% FINES	Cu>4 AND 1<Cc<3	GW	WELL-GRADED GRAVEL
			Cu>4 AND 1>Cc>3	GP	POORLY-GRADED GRAVEL
		GRAVELS WITH FINES >12% FINES	FINES CLASSIFY AS ML OR CL	GM	SILTY GRAVEL
			FINES CLASSIFY AS CL OR CH	GC	CLAYEY GRAVEL
	SANDS >50% OF COARSE FRACTION PASSES ON NO 4. SIEVE	CLEAN SANDS <5% FINES	Cu>6 AND 1<Cc<3	SW	WELL-GRADED SAND
			Cu>6 AND 1>Cc>3	SP	POORLY-GRADED SAND
		SANDS AND FINES >12% FINES	FINES CLASSIFY AS ML OR CL	SM	SILTY SAND
			FINES CLASSIFY AS CL OR CH	SC	CLAYEY SAND
FINE-GRAINED SOILS >50% PASSES NO. 200 SIEVE	SILTS AND CLAYS LIQUID LIMIT<50	INORGANIC	PI>7 AND PLOTS>"A" LINE	CL	LEAN CLAY
			PI>4 AND PLOTS<"A" LINE	ML	SILT
		ORGANIC	LL (oven dried)/LL (not dried)<0.75	OL	ORGANIC CLAY OR SILT
	SILTS AND CLAYS LIQUID LIMIT>50	INORGANIC	PI PLOTS >"A" LINE	CH	FAT CLAY
			PI PLOTS <"A" LINE	MH	ELASTIC SILT
		ORGANIC	LL (oven dried)/LL (not dried)<0.75	OH	ORGANIC CLAY OR SILT
HIGHLY ORGANIC SOILS		PRIMARILY ORGANIC MATTER, DARK IN COLOR, AND ORGANIC ODOR		PT	PEAT

Relative Proportions of Sand and Gravel

TERM	PERCENT
Trace	< 15
With	15 - 29
Modifier	> 30

Relative Proportions of Fines

TERM	PERCENT
Trace	< 5
With	5 - 12
Modifier	> 12

Grain Size Terminology

TERM	SIZE
Boulder	< 12 in.
Cobble	3 In. - 12 in.
Gravel	#4 sieve to 3 in.
Sand	#200 sieve to #4 sieve
Silt or Clay	Passing #200 sieve

SAMPLE TYPES

Hollow Stem

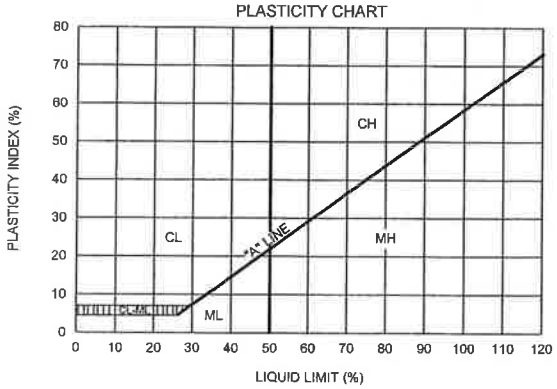
Standard Penetration Test

TEST SYMBOLS

MC	-	MOISTURE CONTENT	LL	-	LIQUID LIMIT
OC	-	ORGANIC CONTENT	PI	-	PLASTISITY INDEX
CN	-	CONSOLIDATION	SW	-	SWELL TEST
DD	-	DRY DENSITY			
PP	-	POCKET PENETROMETER (TSF)			
RV	-	R-VALUE			
SA	-	SIEVE ANALYSIS			
P200	-	% PASSING #200 SIEVE			

▽ - WATER LEVEL (WITH TIME OF) MEASUREMENT

PLASTICITY CHART



PENETRATION RESISTANCE
(RECORDED AS BLOWS / 0.5 FT)

SAND & GRAVEL		SILT & CLAY		
RELATIVE DENSITY	BLOWS/FOOT*	CONSISTENCY	BLOWS/FOOT*	COMPRESSIVE STRENGTH (TSF)
VERY LOOSE	0 - 4	VERY SOFT	0 - 1	0 - 0.25
LOOSE	4 - 10	SOFT	2 - 3	0.25 - 0.50
MEDIUM DENSE	10 - 30	RATHER SOFT	4 - 5	0.50 - 1.0
DENSE	30 - 50	MEDIUM	6 - 8	
VERY DENSE	OVER 50	RATHER STIFF	9 - 12	1.0 - 2.0
		STIFF	13 - 16	
		VERY STIFF	17 - 30	2.0 - 4.0
		HARD	OVER 30	OVER 4.0

* NUMBER OF BLOWS OF 140 LB HAMMER FALLING 30 INCHES TO DRIVE A 2 INCH O.D. (1-3/8 INCH I.D.) SPLIT-BARREL SAMPLER THE LAST 12 INCHES OF AN 18-INCH DRIVE (ASTM-1586 STANDARD PENETRATION TEST).

Chosen Valley Testing

Job No. MNM09.1060B

LEGEND TO SOIL DESCRIPTIONS

CVT

CVT MNM2009.1060B GPJ 4/22/09

CVT

Chosen Valley Testing

Design Phase Geotechnical Evaluation:

Replace Bridge L5679
Township Road 337 over Big Cobb River
Medo Township, Blue Earth County, Minnesota

Prepared for:

Mr. Al Forsberg, PE
Blue Earth County Public Works

April 23, 2009
MNM09.1060C

1410 7th Street NW
Rochester MN 55901
507-281-0968
Fax: 507-289-2523

135 Buchner Place
La Crosse, WI 54603
608-782-5505
Fax: 608-785-2818

31 1st Ave. S
Rice, MN 56367
320-393-3306
Fax: 320-393-3309

1402 -1/2 N 2nd St.
Mankato, MN 56001
507-389-9180
Fax: 507-389-9180

550 Hwy. 18 E
Clear Lake, IA 50428
641-420-3680
Fax: 507-289-2523

Boring Location Sketch

Replace Bridge L5679
Blue Earth Co., Minnesota

Legend

Boring Locations

N

0 50 100 200 Feet

MINNESOTA DEPARTMENT OF TRANSPORTATION - GEOTECHNICAL SECTION

LABORATORY LOG & TEST RESULTS - SUBSURFACE EXPLORATION

UNIQUE NUMBER

U.S. Customary Units

State Project	Bridge No. or Job Desc.	Trunk Highway/Location	Boring No.	Ground Elevation
	Ex. Br. L5679	**Township Road 337**	**B-01**	**1000.5** (Surveyed)

Location: Blue Earth Co. Coordinate: X=599632 Y=140191 (ft.)

Latitude (North)= Longitude (West)=

No Station-Offset Information Available

Drill Machine **CME 75** | Hammer **CME Automatic** | SHEET 1 of 2 | Drilling Completed **3/18/09**

DEPTH	Depth / Elev.	Lithology	Classification	Drilling Operation	SPT N60 / REC (%)	MC (%) / RQD (%)	COH (psf) / ACL (ft)	γ (pcf) / Core Breaks	Soil / Rock	Other Tests Or Remarks / Formation or Member
	0.5 1000.0		**AGGREGATE BASE**							Elevations provided by Blue Earth County
5			**CLAY LOAM** with roots, dark brown to black, moist, frozen to 4 feet. (Fill)		13 9					
	6.5 994.0		**SANDY CLAY LOAM** fine grained, trace gravel, dark brown to black, very wet to water bearing, very loose. (Alluvium/Possible Fill)		3 4					Water at about 9 feet during drilling.
10	11.5 989.0		**CLAY LOAM** trace gravel, gray, wet, rather stiff. (Glacial Till)		10 9 9 9 10 10 10					PP = 1.5 tsf PP = 1.5 tsf PP = 1.25 tsf PP = 1.5 tsf PP = 1.75 tsf PP = 1.75 tsf PP = 1.25 tsf
30	29.0 971.5		**SANDY CLAY LOAM** grades to clay loam, fine grained, trace gravel, gray, wet, medium dense. (Glacial Fluvium/Glacial Till)		21					PP = 3.0 tsf
35	33.0 967.5		**CLAY LOAM** trace gravel, gray, moist, very stiff to hard. (Glacial Till)		43					PP = 4.5 tsf
40					24					PP > 4.5 tsf
45	43.0 957.5		**SANDY CLAY LOAM** grades to clay loam, fine grained, trace gravel, gray, very wet, loose. (Glacial Fluvium/Glacial Till)		7					PP = 1.5 tsf
50	48.0 952.5		**SAND** with gravel, trace silt, medium to coarse grained, brown, water bearing, very dense. (Glacial Outwash)		72					

Index Sheet Code 3.0

(Continued Next Page)

Soil Class: Rock Class: Edit: Date: 4/23/09

P:\GINT PROJECTS\MNDOT1060C.GPJ

MINNESOTA DEPARTMENT OF TRANSPORTATION - GEOTECHNICAL SECTION

LABORATORY LOG & TEST RESULTS - SUBSURFACE EXPLORATION

UNIQUE NUMBER

U.S. Customary Units

Mn/DOT GEOTECHNICAL SECTION - LOG & TEST RESULTS — *SHEET 2 of 2*

State Project	Bridge No. or Job Desc.	Trunk Highway/Location	Boring No.	Ground Elevation
	Ex. Br. L5679	**Township Road 337**	**B-01**	**1000.5** *(Surveyed)*

DEPTH / Depth / Elev.	Lithology	Classification	Drilling Operation	SPT N_{60} (%) REC	MC (%) RQD	COH (psf) ACL (ft)	γ (pcf) Core Breaks	Soil / Rock	Other Tests Or Remarks / Formation or Member
55		**SAND** with gravel, trace silt, medium to coarse grained, brown, water bearing, very dense. (Glacial Outwash) *(continued)*		80					
60				59					
63.0 / 937.5									
65		**SAND** trace gravel, fine to medium grained, brown, water bearing, dense to very dense. (Glacial Outwash)		81					
70				38					
75				75					
78.0 / 922.5									
80				59					
85		**SAND** with gravel, trace cobbles, coarse grained, brown, water bearing, very dense. (Glacial Outwash)		32 / 50/.2	NSR				cobble encountered
90				89					cobble encountered
95				71					cobble encountered
98.0 / 902.5									
100		**SILT LOAM** brown, very wet, very stiff. (Glacial Till)		26					
101.0 / 899.5		Bottom of Hole - 101 ft. Water measured at 9 ft while sampling and/or drilling							

Soil Class: Rock Class: Edit: Date: 4/23/09

P:\GINT PROJECTS\MNDOT1060C.GPJ

MINNESOTA DEPARTMENT OF TRANSPORTATION - GEOTECHNICAL SECTION

LABORATORY LOG & TEST RESULTS - SUBSURFACE EXPLORATION

UNIQUE NUMBER

U.S. Customary Units

State Project	Bridge No. or Job Desc.	Trunk Highway/Location	Boring No.	Ground Elevation
	Ex. Br. L5679	Township Road 337	B-02	1005.1 (Surveyed)

Location: Blue Earth Co. Coordinate: X=599616 Y=140070 (ft.)

Latitude (North)= Longitude (West)=

No Station-Offset Information Available

Drill Machine CME 75

Hammer CME Automatic

SHEET 1 of 2

Drilling Completed 3/19/09

DEPTH	Depth / Elev.	Lithology	Classification	Drilling Operation	SPT N60 / REC (%)	MC (%) / RQD (%)	COH (psf) / ACL (ft)	γ (pcf) / Core Breaks	Soil / Rock	Other Tests Or Remarks / Formation or Member
	1.0 1004.1		**AGGREGATE BASE**							
5			**CLAY LOAM** with roots, trace gravel, dark brown to black, wet. (Fill)		13 11					
	6.5 998.6				21					
10			**CLAY LOAM** trace gravel, brown, moist to wet, stiff to very stiff. (Glacial Till)		15 17					PP = 2.25 tsf PP = 2.75 tsf
	14.0 991.1				9					PP = 2.0 tsf
15					8					PP = 1.5 tsf Water at about 18 feet after last sample.
20			**CLAY LOAM<B> trace gravel, gray, wet, medium to rather stiff.** **(Glacial Till)**		7 10					PP = 1.5 tsf PP = 1.75 tsf
25					9					PP = 1.75 tsf
					9					PP = 1.5 tsf
30					10					PP = 2.25 tsf
	33.0 972.1									
35			**SANDY CLAY LOAM** grades to sandy loam, fine to medium grained, trace gravel, gray, wet, loose. (Glacial Fluvium/Glacial Till)		7					
	38.0 967.1									
40			**CLAY LOAM** trace gravel, gray, moist, hard. (Glacial Till)		65					Water at about 40 feet during drilling. PP > 4.5 tsf
	43.0 962.1									
45			**CLAY LOAM** trace gravel, with sand seams, gray, wet, rather stiff. (Glacial Till)		10					PP = 2.0 tsf
	50.0 955.1									
50			**SAND** with gravel, trace silt, trace cobbles, medium to coarse grained, brown, water bearing, dense to very dense. (Glacial Outwash)		63					

Index Sheet Code 3.0

(Continued Next Page)

Soil Class: Rock Class: Edit: Date: 4/23/09

P:\GINT PROJECTS\MNDOT1060C.GPJ

MINNESOTA DEPARTMENT OF TRANSPORTATION - GEOTECHNICAL SECTION

LABORATORY LOG & TEST RESULTS - SUBSURFACE EXPLORATION

UNIQUE NUMBER

U.S. Customary Units

Mn/DOT GEOTECHNICAL SECTION - LOG & TEST RESULTS — *SHEET 2 of 2*

State Project	Bridge No. or Job Desc.	Trunk Highway/Location	Boring No.	Ground Elevation
	Ex. Br. L5679	**Township Road 337**	**B-02**	**1005.1** *(Surveyed)*

DEPTH / Depth / Elev.	Lithology	Classification	Drilling Operation	SPT N_{60} / REC (%)	MC (%) / RQD (%)	COH (psf) / ACL (ft)	γ (pcf) / Core Breaks	Soil / Rock	Other Tests Or Remarks / Formation or Member
55				49					
60				79					
65		**SAND** with gravel, trace silt, trace cobbles, medium to coarse grained, brown, water bearing, dense to very dense. (Glacial Outwash) *(continued)*		50/.3					cobble encountered
70				50/0	NSR				cobble encountered
75				74					
80				79					cobble encountered
83.0 / 922.1									
85				43 / 50/.4					
90		**SAND** fine to medium grained, brown, water bearing, dense to very dense. (Glacial Outwash)		40 / 45 / 50/.1					
95				92					
100				43					
101.0 / 904.1		Bottom of Hole - 101 ft. Water measured at 40 ft while sampling and/or drilling. Water measured at 18.5 after completion of drilling operations							

Soil Class: Rock Class: Edit: Date: 4/23/09

P:\GINT PROJECTS\MNDOT1060C.GPJ

UNIFIED SOIL CLASSIFICATION (ASTM D-2487/2488)

MATERIAL TYPES	CRITERIA FOR ASSIGNING SOIL GROUP NAMES			GROUP SYMBOL	SOIL GROUP NAMES & LEGEND
COARSE-GRAINED SOILS >50% RETAINED ON NO. 200 SIEVE	GRAVELS >50% OF COARSE FRACTION RETAINED ON NO 4. SIEVE	CLEAN GRAVELS <5% FINES	Cu>4 AND 1<Cc<3	GW	WELL-GRADED GRAVEL
			Cu>4 AND 1>Cc>3	GP	POORLY-GRADED GRAVEL
		GRAVELS WITH FINES >12% FINES	FINES CLASSIFY AS ML OR CL	GM	SILTY GRAVEL
			FINES CLASSIFY AS CL OR CH	GC	CLAYEY GRAVEL
	SANDS >50% OF COARSE FRACTION PASSES ON NO 4. SIEVE	CLEAN SANDS <5% FINES	Cu>6 AND 1<Cc<3	SW	WELL-GRADED SAND
			Cu>6 AND 1>Cc>3	SP	POORLY-GRADED SAND
		SANDS AND FINES >12% FINES	FINES CLASSIFY AS ML OR CL	SM	SILTY SAND
			FINES CLASSIFY AS CL OR CH	SC	CLAYEY SAND
FINE-GRAINED SOILS >50% PASSES NO. 200 SIEVE	SILTS AND CLAYS LIQUID LIMIT<50	INORGANIC	PI>7 AND PLOTS>"A" LINE	CL	LEAN CLAY
			PI>4 AND PLOTS<"A" LINE	ML	SILT
		ORGANIC	LL (oven dried)/LL (not dried)<0.75	OL	ORGANIC CLAY OR SILT
	SILTS AND CLAYS LIQUID LIMIT>50	INORGANIC	PI PLOTS >"A" LINE	CH	FAT CLAY
			PI PLOTS <"A" LINE	MH	ELASTIC SILT
		ORGANIC	LL (oven dried)/LL (not dried)<0.75	OH	ORGANIC CLAY OR SILT
HIGHLY ORGANIC SOILS		PRIMARILY ORGANIC MATTER, DARK IN COLOR, AND ORGANIC ODOR		PT	PEAT

Relative Proportions of Sand and Gravel

TERM	PERCENT
Trace	< 15
With	15 - 29
Modifier	> 30

Relative Proportions of Fines

TERM	PERCENT
Trace	< 5
With	5 - 12
Modifier	> 12

Grain Size Terminology

TERM	SIZE
Boulder	< 12 in.
Cobble	3 in. - 12 in.
Gravel	#4 sieve to 3 in.
Sand	#200 sieve to #4 sieve
Silt or Clay	Passing #200 sieve

SAMPLE TYPES

Hollow Stem

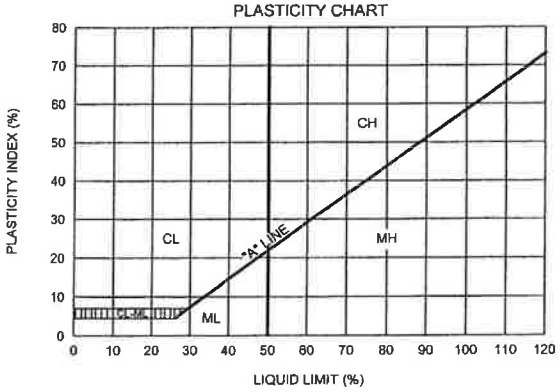
Standard Penetration Test

TEST SYMBOLS

MC	-	MOISTURE CONTENT	LL	-	LIQUID LIMIT
OC	-	ORGANIC CONTENT	PI	-	PLASTISITY INDEX
CN	-	CONSOLIDATION	SW	-	SWELL TEST
DD	-	DRY DENSITY			
PP	-	POCKET PENETROMETER (TSF)			
RV	-	R-VALUE			
SA	-	SIEVE ANALYSIS			
P200	-	% PASSING #200 SIEVE			

▽ - WATER LEVEL (WITH TIME OF) MEASUREMENT

PLASTICITY CHART



PENETRATION RESISTANCE
(RECORDED AS BLOWS / 0.5 FT)

SAND & GRAVEL		SILT & CLAY		
RELATIVE DENSITY	BLOWS/FOOT*	CONSISTENCY	BLOWS/FOOT*	COMPRESSIVE STRENGTH (TSF)
VERY LOOSE	0 - 4	VERY SOFT	0 - 1	0 - 0.25
LOOSE	4 - 10	SOFT	2 - 3	0.25 - 0.50
MEDIUM DENSE	10 - 30	RATHER SOFT	4 - 5	0.50 - 1.0
DENSE	30 - 50	MEDIUM	6 - 8	
VERY DENSE	OVER 50	RATHER STIFF	9 - 12	1.0 - 2.0
		STIFF	13 - 16	
		VERY STIFF	17 - 30	2.0 - 4.0
		HARD	OVER 30	OVER 4.0

* NUMBER OF BLOWS OF 140 LB HAMMER FALLING 30 INCHES TO DRIVE A 2 INCH O.D. (1-3/8 INCH I.D.) SPLIT-BARREL SAMPLER THE LAST 12 INCHES OF AN 18-INCH DRIVE (ASTM-1586 STANDARD PENETRATION TEST).

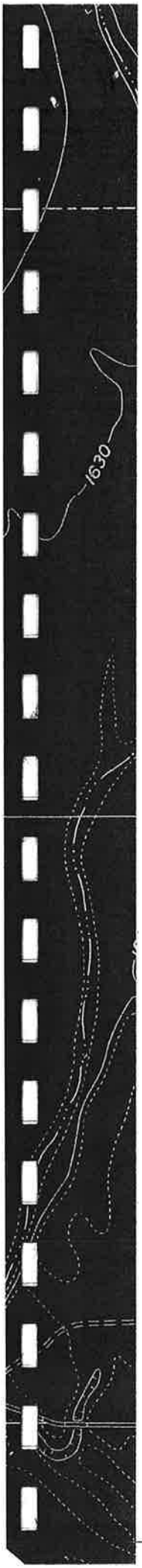
Chosen Valley Testing

Job No. MNM09.1060C

LEGEND TO SOIL DESCRIPTIONS

CVT

CVT MNM2009.1060C.GPJ 4/22/09



BRAUN
INTERTEC

Asbestos and Regulated Waste Assessment

Bridge #90537, CSAH 46
Bridge #07537, CSAH 14
Bridge #90517, CSAH 14
Bridge #90559, County Road 164
Bridge #L5679, Beauford Township Road
Blue Earth County, Minnesota

Prepared for

Blue Earth County Highway Department

Project MA-09-03431
September 21, 2009

Braun Intertec Corporation

Braun Intertec Corporation
11001 Hampshire Avenue S.
Minneapolis, MN 55438
Phone: 952-995-2000
Fax: 952-995-2020
Web: www.braunintertec.com

September 21, 2009

Project MA-09-03431

Mr. Ryan Thilges
Blue Earth County Highway Department
35 Map Drive, P.O. Box 3083
Mankato, MN 56001

Re: Asbestos and Regulated Waste Assessment
Bridge #90537, CSAH 46
Bridge #07537, CSAH 14
Bridge #90517, CSAH 14
Bridge #90559, County Road 164
Bridge #L5679, Beauford Township Road
Blue Earth County, Minnesota

Dear Mr. Thilges:

The enclosed report provides the results of the asbestos and regulated waste assessments conducted on September 2, 2009, of Bridge #90537, Bridge #07537, Bridge #90517, Bridge #90559, and Bridge #L5679 in Blue Earth County, Minnesota. The inspections were conducted in accordance with Minnesota Rules 4620.3460, and in general accordance with Minnesota Department of Transportation's (Mn/DOT's) *Asbestos and Regulated Waste Manual for Structure Demolition or Relocations for Construction Projects.* Braun Intertec was authorized to conduct this work in accordance with our Proposal MA-09-03431 dated August 11, 2009.

If you have any questions or need further assistance, please call Becky McCarty at 507-995-2788 or Gregg Kruse at 952-995-2438.

Sincerely,

BRAUN INTERTEC CORPORATION

Becky L. McCarty
Staff Scientist

Gregg D. Kruse
Associate Principal

Attachments:
Asbestos and Regulated Waste Assessment

Table of Contents

Tables

Appendices

A. Introduction

A.1 Purpose of Inspection

This report presents the results of an asbestos and regulated waste assessment for asbestos-containing materials (ACM), lead paint, and other hazardous material/special waste concerns at the existing Bridge #90537, Bridge #07537, Bridge #90517, Bridge #90559, and Bridge #L5679 in Blue Earth County, Minnesota. This inspection was conducted in accordance with Minnesota Rules 4620.3460, and in general accordance with Minnesota Department of Transportation's (Mn/DOT's) *Asbestos and Regulated Waste Manual for Structure Demolition or Relocations for Construction Projects*.

It is our understanding that Blue Earth County has the plans for replacing (demolishing) these bridges and wishes to identify hazardous materials or special wastes that may be encountered during bridge demolition.

The scope of our services was limited to:

- Review available bridge drawings for indications of possible asbestos-containing materials (ACM), lead-based paint, and other regulated waste that require separate handling and/or disposal prior to bridge demolition.

- Conduct a hazardous materials assessment at the bridge locations in accordance with Minnesota Rules 4620.3460, and in general accordance with Minnesota Department of Transportation's (MnDOT's) *Asbestos and Regulated Waste Manual for Structure Demolition or Relocations for Construction Projects*.

- Collect and analyze representative bulk samples of materials suspected of containing asbestos, and submit to the Braun Intertec microscopy laboratory for analysis via polarized light microscopy (PLM).

- Conduct lead-based paint testing of painted surfaces suspected of containing lead. Testing will be accomplished using a Niton X-ray fluorescence (XRF) spectrum analyzer.

- Following completion of the fieldwork and laboratory analysis, we will submit a written report detailing the above information, including sample locations, analysis results, conditions, and quantities.

A.2 Records Review and Site Description

Bridge drawings were limited to three of the five bridges and not reviewed for this assessment.

Bridge #90537, CSAH 46: The bridge deck is bituminous over treated lumber. The bridge superstructure is constructed of treated lumber that includes the bridge deck, abutments, wing walls, piers, and guardrails.

Bridge #07537, CSAH 14: The bridge deck is bituminous over pre-cast concrete. The bridge abutments and wing walls are constructed of treated lumber. The guardrails are treated lumber with galvanized metal.

Bridge #090517, CSAH 14: The bridge deck, abutments, and wing walls are concrete. The guardrails are painted metal with unpainted decorative concrete posts. The under-deck superstructure span is constructed of steel beams.

Bridge #090559, CSAH 164: The bridge deck is Class V road bed over concrete. The bridge superstructure is constructed of concrete that includes the bridge deck, abutments, wing walls, and decorative guardrails. The approach guardrails are treated lumber with galvanized metal.

Bridge #L5679, Beauford Township Road: The bridge deck is Class V road bed over concrete. The bridge deck, abutments, and wing walls are concrete. The guardrails are constructed of angle iron. The under-deck superstructure span is constructed of steel beams.

B. Field Activities and Results

The asbestos and regulated waste assessments were conducted on September 2, 2009. The bridges were open for traffic.

B.1. Asbestos-Containing Materials

A total of five (5) bulk samples of suspect materials were collected on September 2, 2009, and submitted to our laboratory for analysis. The following is a summary of the material found or assumed to contain greater than one percent asbestos (asbestos-containing materials by regulatory definition).

- No asbestos-containing materials were found during the assessment.

B.1.a Non-Asbestos-Containing Materials

The following is a summary of materials found to contain no asbestos or materials that contain one percent or less asbestos (non-asbestos-containing materials by regulatory definition).

- Bridge #07537 – black tarry spray on south abutment at SE corner (on concrete)
- Bridge #07537 – black tarry spray on SE wing wall (on treated wood)
- Bridge #90517 – black tarry on wing walls and abutments
- Bridge #90517 – black tarry on center-line joint material
- Bridge #90559 – black tarry on NW wing wall

Table I lists the suspect materials by location, whether the suspect material was identified by analysis to be an asbestos-containing material, an estimated amount of each suspect material, and includes condition and hazard ratings based on subjective observations made by our representatives.

Table II lists the homogenous material sample numbers, sample locations, suspect material descriptions, and the analysis results for each sample. This table summarizes the results from the attached Bulk Asbestos Analysis Report.

Refer to Appendix B photos #5, #6, #9, #10, and #14 for the asbestos bulk sample locations.

B.2. Lead in Paint Analysis

Bridge #90517: Lead-based paint was detected on the Bridge #90517 green-painted bridge deck metal railings, and steel support beams. The lead-based paint on the green-painted metal railings and steel support beams were observed to be peeling and flaking in limited areas at the time of the inspection.

Refer to the attached Braun Intertec Lead-Based Paint Testing Results Table III, which lists the sample numbers, sample locations, component descriptions, XRF field results and the paint condition for each sample.

Refer to Appendix B photos #11 and #12 for XRF lead paint testing sample locations.

B.3. Miscellaneous Regulated Waste

A visual inspection for miscellaneous regulated waste materials that requires separate handling and disposal prior to the bridge demolition was also performed as part of this inspection. The following is a list of the items documented at the Site and their approximate quantities.

Bridge #90537, CSAH 46:

- Treated timbers for superstructure, piers, guardrails, wing walls, and abutments (59'L x 26'W x 10'H to creek bed)
- Twenty-six (26) 12" x 15" lead sheeting at bearing plates

Note: A conduit was attached to and running along the south railing of the bridge deck with an unknown origin and end point.

Bridge #07537, CSAH 14:

- Treated timbers at abutments and wing walls (2 each at 70'L x 5' average height), and guardrail posts (24 each)

Bridge #090517, CSAH 14:

- Ten (10) 18" x 24" lead sheeting at bearing plates
- Peeling lead-based paint (in limited areas) at green metal railings (6 railings at 55' each)
- Peeling lead-based paint (in limited areas) at steel beams (5 beams at 55' each)

Bridge #090559, CSAH 164:

- Treated timbers at approach guardrail posts (52 each)

Bridge #L5679, Beauford Township Road:

- No miscellaneous regulated waste materials found during the inspection

C. Discussion/Recommendations/Remarks

C.1. Asbestos-Containing Materials

C.1. Asbestos-Containing Materials

No asbestos containing materials were found during the assessment.

C.1.a Non-Asbestos-Containing Materials

The materials listed in Section B.1.a were found to contain no asbestos or one percent or less asbestos (non-asbestos-containing materials by regulatory definition). Non-asbestos-containing materials are not regulated by state or federal agencies and have no special handling or disposal requirements.

C.2. Lead in Paint

Bridge components with lead paint are not required to be disposed of as lead or hazardous waste, as long as the paint is adhered to its substrate prior to disturbance from demolition. If lead-based paint (XRF result of 1.0 mg/cm^2 or greater) is peeling or flaking, the paint that is not attached to the substrate must be stabilized and/or removed and disposed of as lead waste in accordance with state and federal regulations, prior to disturbance from the bridge demolition.

Bridge #90517: The lead-based paint detected on the green painted metal railings and steel support beams were found to be peeling or flaking in limited areas and must be stabilized and/or removed and disposed of as lead waste in accordance with state and federal regulations, prior to disturbance from the bridge demolition.

The U.S. Occupational Safety and Health Administration (OSHA) Lead in Construction Standard 29 CFR 1926.62 applies to all situations where employees are engaged in the disturbance of lead-containing coatings, regardless of the quantity of lead involved. Therefore, any XRF result above 0.0 mg/cm^2 is considered "lead-containing coatings" in order to be in compliance with the OSHA standard. Bridge demolition may involve disturbing lead-containing coatings. Contractors should be informed of the presence of lead coatings and that they will be required to comply with the OSHA lead standard.

C.3. Miscellaneous Regulated Waste

In the case of bridge demolition, the miscellaneous regulated waste items listed in Section B.3 must be removed prior to disturbance and must be recycled or disposed of in accordance with state and federal guidelines.

In addition, the potential exists for asbestos and other hazardous materials to be found buried underground and other inaccessible areas of the bridge. Braun Intertec cannot be held responsible for the presence of any such hidden materials. In the case of bridge demolition, contractors involved in the project should be made aware of this potential. If previously unidentified suspect asbestos or other hazardous building materials are exposed during their activities they should be sampled and analyzed for content prior to any disturbance.

D. Methodology

D.1. Asbestos Bulk Collection and Analysis

The personnel who performed the asbestos survey and sampling have completed, at a minimum, an EPA-approved training course in Asbestos Inspection and the applicable refresher training courses.

Bulk asbestos analysis was conducted in accordance with the Environmental Protection Agency's (EPA) Method 40 CFR, Chapter 1, Part 763, Subpart F, and Appendix A (7/1/87 Edition). Bulk samples are retained at our laboratory for 60 days and then disposed of unless instructed otherwise. Detailed quality-control information is available upon request.

D.2. Lead in Paint Analysis

Testing of painted surfaces for lead was accomplished utilizing a Niton XL X-Ray Fluorescence (XRF) field portable analyzer, Model No. XLP303A - Serial No. 22287, equipped with a 40-milocurie CD-109 source - Serial No. TR0385, installed on December 19, 2008. Analysis decision-making protocols were based on compliance with the U.S. Environmental Protection Agency (EPA) and Minnesota Department of Health (MDH), which consider any XRF result of 1.0 milligram per square centimeter (mg/cm^2) or greater to be "lead-based paint."

In performing its services, Braun Intertec used that degree of care and skill ordinarily exercised under similar circumstances by reputable members of its profession currently practicing in the same locality. No warranty, express or implied, is made.

E. Signatures

I, the undersigned, do hereby certify that I am an accredited Asbestos Building Inspector in the State of Minnesota. A photocopy of my current asbestos inspector certificate is attached in Appendix C.

Prepared by:

Signature: _____ Date: 9/21/09

Gerald J. Wallenius
Project Scientist

Table I

Asbestos Assessment Results

BRAUN
INTERTEC

Table I. Asbestos Assessment Results

Providing engineering and environmental solutions since 1957

Client: Blue Earth County Highway Department
Location: Bridges of Blue Earth County, MN
Date of Inspection: September 2, 2009
Project No.: MA-09-03431

Functional Space	Homogeneous Material Description	Contains Asbestos (Yes/No)	Ref. Client Sample No. (See Table II)	Estimated Quantity Units	Material Condition[1]	Hazard Category[2]
CSAH 46 - Bridge #90537						
No suspect ACM observed. None observed at coring location 7 feet east of west abutment (SW corner of bridge)						
CSAH 14 - Bridge #07537						
Pre-cast bridge deck/ south abutment at SE corner	Black tarry	No	1 See Photo #5	150 ft^2	ND	0
SE wing wall - treated wood	Black tarry	No	2 See Photo #6	700 ft^2	ND	0
NW corner of bridge deck	No suspect ACM observed under bituminous on top of pre-cast concrete deck	—	—	—	—	—
CSAH 14 - Bridge #90517						
Wing walls and abutments	Black tarry	No	3 See Photo #9	900 ft^2	ND	0
Center line joint material	Black tarry	No	4 See Photo #10	55 lin. ft.	ND	0
County Road 164 - Bridge #90559						
NW wing wall	Black tarry	No	5 See Photo #14	1,100 ft^2	ND	0
Beauford Township Road - Bridge #L5679						
No suspect ACM observed						

1. Condition of ACM:
   - ND = Not Damaged
   - D = Damaged
   - SD = Significantly Damaged

2. Hazard Category
   - 0 = No hazard - material does not contain asbestos
   - 1 = ACM with potential for damage
   - 2 = ACM with potential for significant damage
   - 3 = Damaged or significantly damaged asbestos-containing miscellaneous material
   - 4 = Damaged or significantly damaged friable asbestos-containing thermal system insulation
   - 5 = Damaged or significantly damaged friable asbestos-containing surfacing material

Table II

Bulk Asbestos Analytical Results

BRAUN
INTERTEC

Table II. Bulk Asbestos Analytical Results

Providing engineering and environmental solutions since 1957

Client: Blue Earth County Highway Department
Location: Bridges of Blue Earth County, MN
Date of Inspection: September 2, 2009
Project No.: MA-09-03431

Sample No.	Sample Location	Material	Asbestos Content (%)[1]
1	Bridge #07537 - south abutment at SE corner (on concrete)	Black tarry spray	N.D.[2]
2	Bridge #07537 - SE wing wall (on treated wood)	Black tarry spray	N.D.
3	Bridge #90517 - wing walls and abutments	Black tarry	N.D.
4	Bridge #90517 - center line joint material	Black tarry	N.D.
5	Bridge #90559 - NW wing wall	Black tarry	N.D.

Materials containing 1 percent of asbestos or less are not considered to be asbestos-containing materials by the U.S. EPA.

1. Asbestos content is indicated as an approximate percent by area.
2. N.D. = None Detected.

Table III

XRF Lead-Based Paint Testing Results

BRAUN INTERTEC

Table III. Lead-Based Paint Testing

Providing engineering and environmental solutions since 1957

Client: Blue Earth County Highway Department
Location: Bridges of Blue Earth County, MN
Date of Inspection: September 2, 2009
Project No.: MA-09-03431

Sample I.D. No.	Room/Area	Component Description	Field Results (mg/cm^2)	Paint Condition G = Good P = Peeling
CSAH 46 - Bridge #90537				
No painted surfaces		—	—	—
CSAH 14 - Bridge #07537				
No painted surfaces		—	—	—
CSAH 14 - Bridge #90517				
1	Calibration	Surface	0.9	—
2	Calibration	Buried	1.1	—
3	Bridge deck railings	Metal - green	3.9	Peeling (limited areas)
4	Bridge deck railings	Metal - green	6.8	Peeling (limited areas)
5	Steel beams	Steel beams - green	4.6	Peeling (limited areas)
County Road 164 - Bridge #90559				
No painted surfaces		—	—	—
Beauford Township Road - Bridge #L5679				
1	Railing	Iron	0.0	G
2	Beams	Steel beams	0.0	G
3	Beams	Steel beams	0.0	G

mg/cm^2 = milligrams of lead per square centimeter of paint

Appendix A

Bulk Asbestos Analysis Report

BRAUN
INTERTEC

Braun Intertec Corporation
11001 Hampshire Avenue S.
Minneapolis, MN 55438

Phone: 952.995.2000
Fax: 952.995.2020
Web: braunintertec.com

Mr. Jerry Wallerius
Braun Intertec-Bloomington
11001 Hampshire Ave. South
Bloomington, MN 55438

September 10, 2009

Work Order #: 0904780

RE: Bridges of Blue Earth Co.

MA-09-03431

Dear Jerry Wallerius:

Bulk Asbestos Analysis Report

The microscopy department of Braun Intertec Corporation received your analytical request on September 03, 2009. The objective of this analysis was to determine the presence of asbestos using polarized light microscopy (PLM) and to determine the percent of asbestos and non-asbestos fibrous components by calibrated visual area estimation. Analytical results are summarized on the following laboratory report.

Methodology

Bulk asbestos analysis is conducted in accordance with the Environmental Protection Agency's (EPA) methods 40 CFR, Part 763, Ch. 1, Subpart F, Appendix A (7-1-87 Edition) and EPA/600/R-93/116. All analyses are in compliance with the quality control procedures specified by the methods. All samples are examined for homogeneity. If a sample contains more than one layer, each layer is analyzed individually. Total fibrous content is calculated for joint compound/wallboard systems by combining layer results according to their percentages of the total sample. Detailed quality control information is available upon request.

Remarks

Braun Intertec is accredited by the National Institute of Standards and Technology's (NIST), National Voluntary Laboratory Accreditation Program (NVLAP) for selected test methods for bulk asbestos identification under Lab Code 101234-0. This report in no way constitutes or implies product certification, approval or endorsement by NVLAP or any other agency of the U.S. Government. This test report relates only to the items submitted for analysis.

NVLAP®
NVLAP LAB CODE 101234-0

BRAUN
INTERTEC

Braun Intertec Corporation
11001 Hampshire Avenue S.
Minneapolis, MN 55438

Phone: 952.995.2000
Fax: 952.995.2020
Web: braunintertec.com

September 10, 2009

Work Order #: 0904780

Samples are retained at our laboratory for a period of 30 days and will be disposed of unless otherwise instructed by the client.

We appreciate your decision to use Braun Intertec Corporation for this project. We are committed to being your vendor of choice to meet your analytical needs.

If you have any questions please contact me at 952-995-2688.

Sincerely,

BRAUN INTERTEC CORPORATION

Steve Felton
Project Manager

Sample No: 0904780-01 Client ID: 1

Macroscopic Description	No. of Layers and Layer Designator	Percent of Total Sample	Non-Fibrous Components*	Other Fibrous Non-Asbestos Content Total or Layer %	Footnotes	Asbestos Content Total or Layer %	Footnotes	Analytical Date
Black tarry	1	100	1,8	Cellulose <1		None Detected		09/10/09

Sample No: 0904780-02 Client ID: 2

Macroscopic Description	No. of Layers and Layer Designator	Percent of Total Sample	Non-Fibrous Components*	Other Fibrous Non-Asbestos Content Total or Layer %	Footnotes	Asbestos Content Total or Layer %	Footnotes	Analytical Date
Black tarry	1	100	1,8	None Detected		None Detected		09/10/09

Sample No: 0904780-03 Client ID: 3

Macroscopic Description	No. of Layers and Layer Designator	Percent of Total Sample	Non-Fibrous Components*	Other Fibrous Non-Asbestos Content Total or Layer %	Footnotes	Asbestos Content Total or Layer %	Footnotes	Analytical Date
Black tarry	1	100	1,8	None Detected		None Detected		09/10/09

Sample No: 0904780-04 Client ID: 4

Macroscopic Description	No. of Layers and Layer Designator	Percent of Total Sample	Non-Fibrous Components*	Other Fibrous Non-Asbestos Content Total or Layer %	Footnotes	Asbestos Content Total or Layer %	Footnotes	Analytical Date
Black tarry	1	100	1,8	None Detected		None Detected		09/10/09

Sample No: 0904780-05 Client ID: 5

Macroscopic Description	No. of Layers and Layer Designator	Percent of Total Sample	Non-Fibrous Components*	Other Fibrous Non-Asbestos Content Total or Layer %	Footnotes	Asbestos Content Total or Layer %	Footnotes	Analytical Date
Black granular tarry	1	100	1,8	None Detected		None Detected		09/10/09

Footnotes and Definitions

< Less Than
> Greater Than

*** Key to Non-Fibrous Components**

1 = Rock/Mineral fragments
2 = Mica/Vermiculite
3 = Binders
4 = Opaques
5 = Diatoms
6 = Perlite
7 = Adhesive/Mastic
8 = Tar
9 = Vinyl
10 = Foam/Rubber
11 = Paint
12 = Other
13 = Spores/Pollen
14 = Foil

BRAUN INTERTEC

Table II Bulk Asbestos Analytical Results

Client: BLUE EARTH COUNTY HIGHWAY DEPT.
Location: BRIDGES OF BLUE EARTH COUNTY
Date of Inspection: 9/2/2009
Project No.: MA-09-03431

Sample No.	Sample Location	Material	Asbestos Content(%)
1	BRIDGE # 07537 - SOUTH ABUTMENT AT SE CORNER (ON CONCRETE)	BLACK TARRY SPRAY	
2	BRIDGE # 07537 - SE WING WALL (ON TREATED WOOD)	↓	
3	BRIDGE # 90517 - WING WALLS AND ABUTMENTS	BLACK TARRY	
4	BRIDGE # 90517 - CULVERT CONS. JOINT MATERIAL	↓	
5	BRIDGE # 90559 - NW WING WALL	↓	

* Materials containing 1 percent of asbestos or less are not considered to be Asbestos-Containing-Materials (ACMs) by the US EPA

1 Asbestos content is indicated as an approximate percent by weight.
2 N.D. = None Detected

For Braun Intertec Use Only
Laboratory Work Order No. 0904780

BRAUN INTERTEC
Braun Intertec Corporation
11001 Hampshire Ave S
Minneapolis, MN 55438

MICROSCOPY
REQUEST FOR LABORATORY ANALYTICAL SERVICES

Some orders and sampling inquiries
labservices@braunintertec.com
Phone 952 995 2600 Fax 952 995 2601

IMPORTANT
Date Results Requested: 9/10/09
Time: 9:00 AM
Rush Charges Authorized? Yes ✓No
Rush Quote #

Page 1 of 1
001005

REPORT RESULTS TO
Contact Name: JERRY WALLERIUS
Company: BRAUN
Mailing Address: BLOOMINGTON
City, State, Zip
Telephone # | Fax #
E-mail

Project ID/Name: BRIDGES OF BLUE EARTH CO. | PO #/Project #: MA-09-03431

SEND INVOICE TO
Contact Name: JERRY WALLERIUS | Company: BRAUN
Address: BLOOMINGTON
City, State, Zip
Telephone # | Fax #

Special Instructions and/or Specific Regulatory Requirements:
$22.00 PLM

ANALYSIS REQUESTED (Enter an X in the box below to indicate request)
Site Location (State): MN

LAB ID#	CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	TIME SAMPLED	MATRIX/MEDIA	VOLUME/AREA (specify units)	Number of Containers	Metals Field Filtered Y/N	PLM	FOR LAB USE ONLY
1	1	9/2/09	A.M	Bulk	–	1		✓	
2	2 (SEE TABLE II)	↓	↓	↓	–	1		✓	
3	3 (SEE TABLE II)	↓	↓	↓	–	1		✓	
4	4 (SEE TABLE II)	↓	P.M	↓	–	1		✓	
5	5	↓	↓	↓	–	1		✓	

CHAIN OF CUSTODY
Collected by: (Print) JERRY WALLERIUS | Collector's Signature: [signature]
Relinquished by: [signature] | Date/Time 9/3/09 9:35 | Received by: | Date/Time
Relinquished by: | Date/Time | Received Contents Not Verified | Date/Time
Custody Seal Intact ☐ Yes ☐ No ☐ N/A ☑ Hand Delivered by Client | Received Contents Verified [signature] | Date/Time 9/3/09 0937
On Ice ☐ Yes ☑ No
Temp Blank ☐ Yes ☑ No
Temp: 21 °C
Comments: ALL REPORTS TO JERRY WALLERIUS AT BLOOMINGTON X2478

Appendix B

Bridge Photographs

Photograph #: 1
Date: September 2, 2009
Subject: Bridge #90537: Overview facing east and coring location

MA-09-03431
BRAUN INTERTEC

Photograph #: 2
Date: September 2, 2009
Subject: Bridge #90537: View of coring location through bituminous

MA-09-03431
BRAUN INTERTEC

Photograph #: 3
Date: September 2, 2009
Subject: Bridge #90537: Typical lead bearing plate

MA-09-03431
BRAUN INTERTEC

Photograph #: 4
Date: September 2, 2009
Subject: Bridge #07537: Overview facing north

MA-09-03431
BRAUN INTERTEC

Photograph #: 5
Date: September 2, 2009
Subject: Bridge #07537: Bulk sample #1 – non acm

MA-09-03431
BRAUN INTERTEC

Photograph #: 6
Date: September 2, 2009
Subject: Bridge #07537: Bulk sample #2 – non acm

MA-09-03431
BRAUN INTERTEC

Photograph #: 7
Date: September 2, 2009
Subject: Bridge #07537: View underneath bituminous between pre-cast concrete – no suspect acm observed

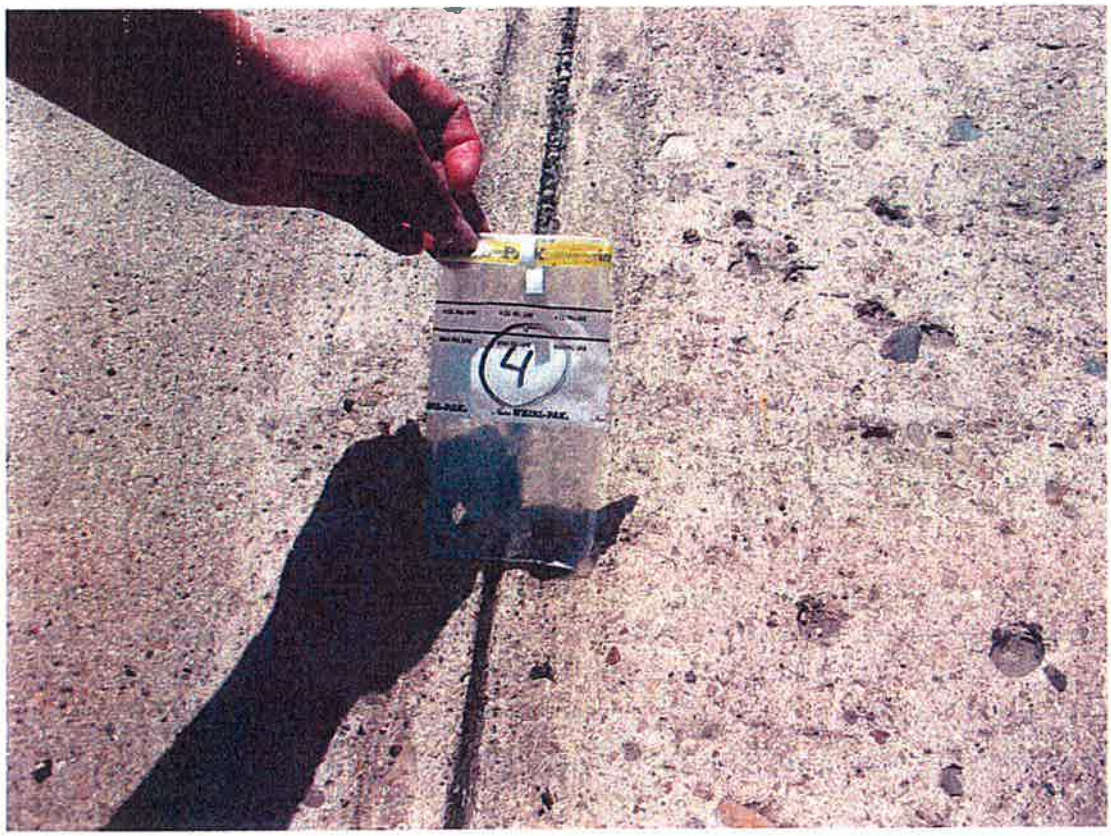
MA-09-03431
BRAUN INTERTEC

Photograph #: 8
Date: September 2, 2009
Subject: Bridge #90517: Overview facing north

MA-09-03431
BRAUN INTERTEC

Photograph #: 9
Date: September 2, 2009
Subject: Bridge #90517: Bulk sample #3 – non acm

MA-09-03431
BRAUN INTERTEC



Photograph #: 10
Date: September 2, 2009
Subject: Bridge #90517: Bulk sample #4 - non acm

MA-09-03431
BRAUN INTERTEC

Photograph #: 11
Date: September 2, 2009
Subject: Bridge #90517: Rusty/peeling lead based paint on railings

MA-09-03431
BRAUN INTERTEC

Photograph #: 12
Date: September 2, 2009
Subject: Bridge #90517: Typical lead bearing plate

MA-09-03431
BRAUN INTERTEC

Photograph #: 13
Date: September 2, 2009
Subject: Bridge #90559: Overview facing east

MA-09-03431
BRAUN INTERTEC

Photograph #: 14
Date: September 2, 2009
Subject: Bridge #90559: Bulk sample #5 – non acm

MA-09-03431
BRAUN INTERTEC

Photograph #: 15
Date: September 2, 2009
Subject: Bridge #L5679: Overview facing south

MA-09-03431
BRAUN INTERTEC

Appendix C

Asbestos Inspector Certificate

Certificate No: 5LM09090804IR

Expiration Date: September 9, 2009

This is to certify that

Gerald Wallerius

has attended and successfully completed an

ASBESTOS INSPECTOR REFRESHER TRAINING COURSE

permitted by

the State of Minnesota under Minnesota Rules 4620.3702 to 4620.3722

and meets the requirements of

Section 206 of Title II of the Toxic Substances Control Act (TSCA)

conducted by

Lake States Environmental, Ltd.

in

White Bear Lake, MN on September 9, 2008

Examination Date: September 9, 2008

Director, Env. Health Div.

MDH

Certified by:
State of Minnesota
Department of Health

Expires: 09/09/2009

Gerald J Wallerius
3010 Garland Ln N
Plymouth, MN 55447

No AI2305 Issued: 09/18/2008

vironmental, Ltd
P. O. Box 645, Rice Lake, WI 54868
(800) 254-9811

Training Instructor